

# On the taxonomy and biogeography of the Plusiinae of south-east Asia

(Insecta, Lepidoptera, Noctuidae, Plusiinae)

Gottfried Behounek and László Ronkay

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The present paper is a further contribution of the series dealing with new and little known taxa of Plusiinae from the South-East-Asian area. The descriptions of twelve new species and three new subspecies are given. New records of eighteen little known taxa are listed.

Gottfried Behounek, Jägerstrasse 4a, D-82041 Deisenhofen, Germany.  
Dr. László Ronkay, Zoological Department Hungarian Natural History Museum, Baross u.13, H-1088, Budapest, Hungary.

## Einleitung

Die vorliegende Arbeit ist ein weiterer Beitrag einer Serie, welche die Plusiinae-Fauna von Südost-Asien behandelt. Es werden zwölf neue Arten sowie drei neue Unterarten beschrieben. Von achtzehn weiteren, wenig bekannten Arten werden neue Fundortdaten angegeben.

## 1. Descriptions of new species and subspecies

*Abrostola schintlmeisteri*, spec. nov.

Plate 1, fig. 1, text-figs 1, 2

**Types.** Holotype: ♂, Philippines, N-Luzon, Ifugao, Banaue, vic 20 km nördl. Laguna, 1200 m, 16°54' nördl. Breite/121°06' östl. Länge, [Sekundärwald, Reisfelder], 22.9.-16.10.1988, leg. K. Cerny & A. Schintlmeister (coll. Behounek, coll. ZSM, Munich) (Slide No. 5082 ♂ Behounek). – Paratypes: 1♀, Philippines. N Luzon: Mts. Prov. Chatol, 15 km SE. Bontoc, 17°02' N, 121°02' E, [Nebelurwald], 1600 m, 24.9., 14.10.1988, leg. K. Cerny & A. Schintlmeister (coll. Behounek) (Slide No. 5113 ♀ Behounek); 1♂, with the same data (coll. Thöny, Poté, Brazil).

**Diagnosis.** The new species is a close relative of *A. suisharyonis* Strand, 1920, distributed in Taiwan and the southern Himalayan region (*A. s. robertsi* Dufay, 1971, known from India and from Nepal). The wing pattern of the two species is very similar but the forewing coloration of the new species is paler, the lower half of the cell and the marginal area are irrorated with ochreous-brownish, therefore the wing is less unicolorous, the plumbeous-greyish costal area is darker, the filling of the stigmata, especially of the orbicular is also paler than in *A. suisharyonis*.

The ♂ genitalia of the two species are similar in type but the harpae and the clavi of the new species are thicker, broader but somewhat shorter, the vesica contains a significantly higher amount of larger cornuti (*A. schintlmeisteri* has about thrice as many as *A. suisharyonis*).

Plate 1

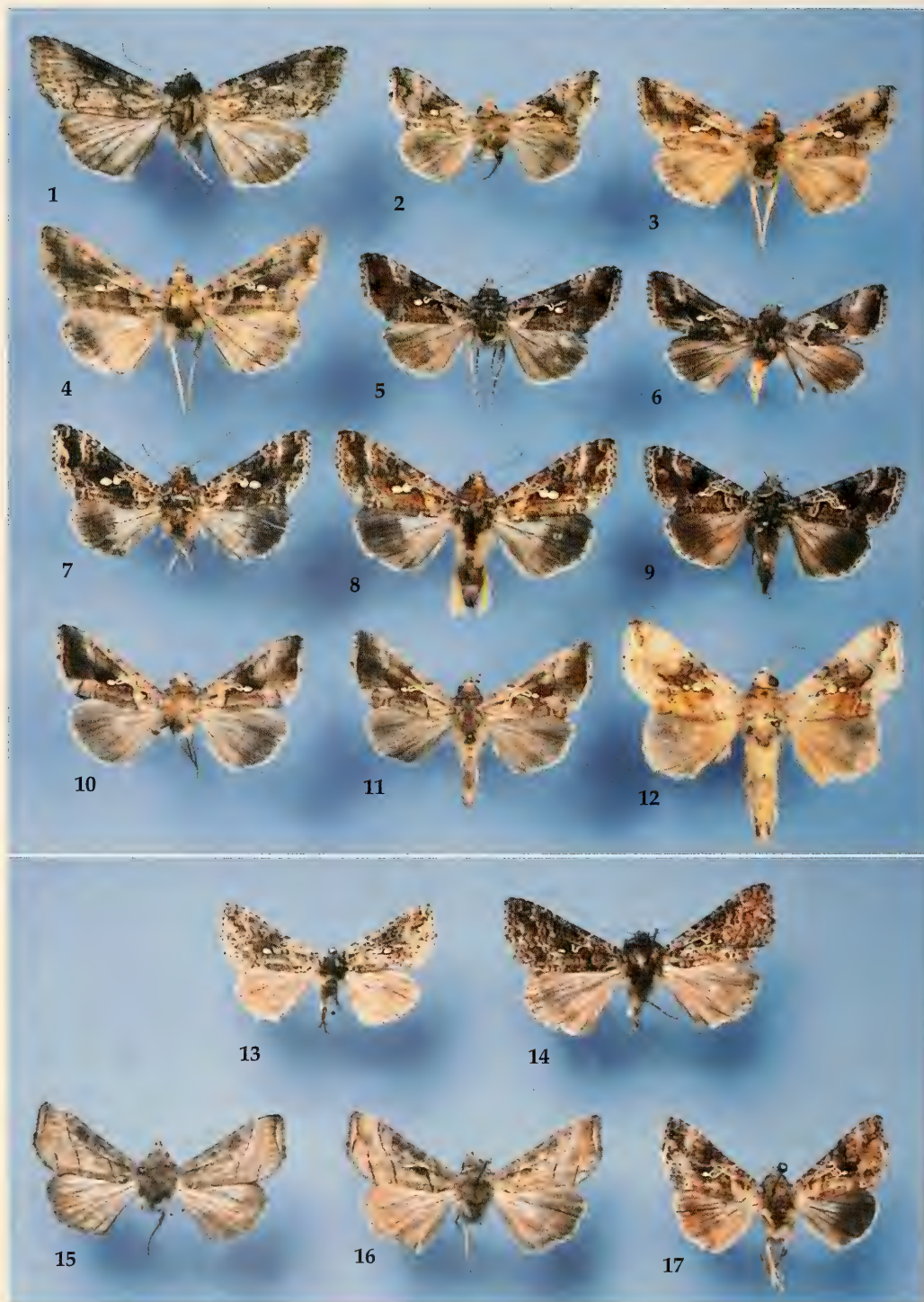
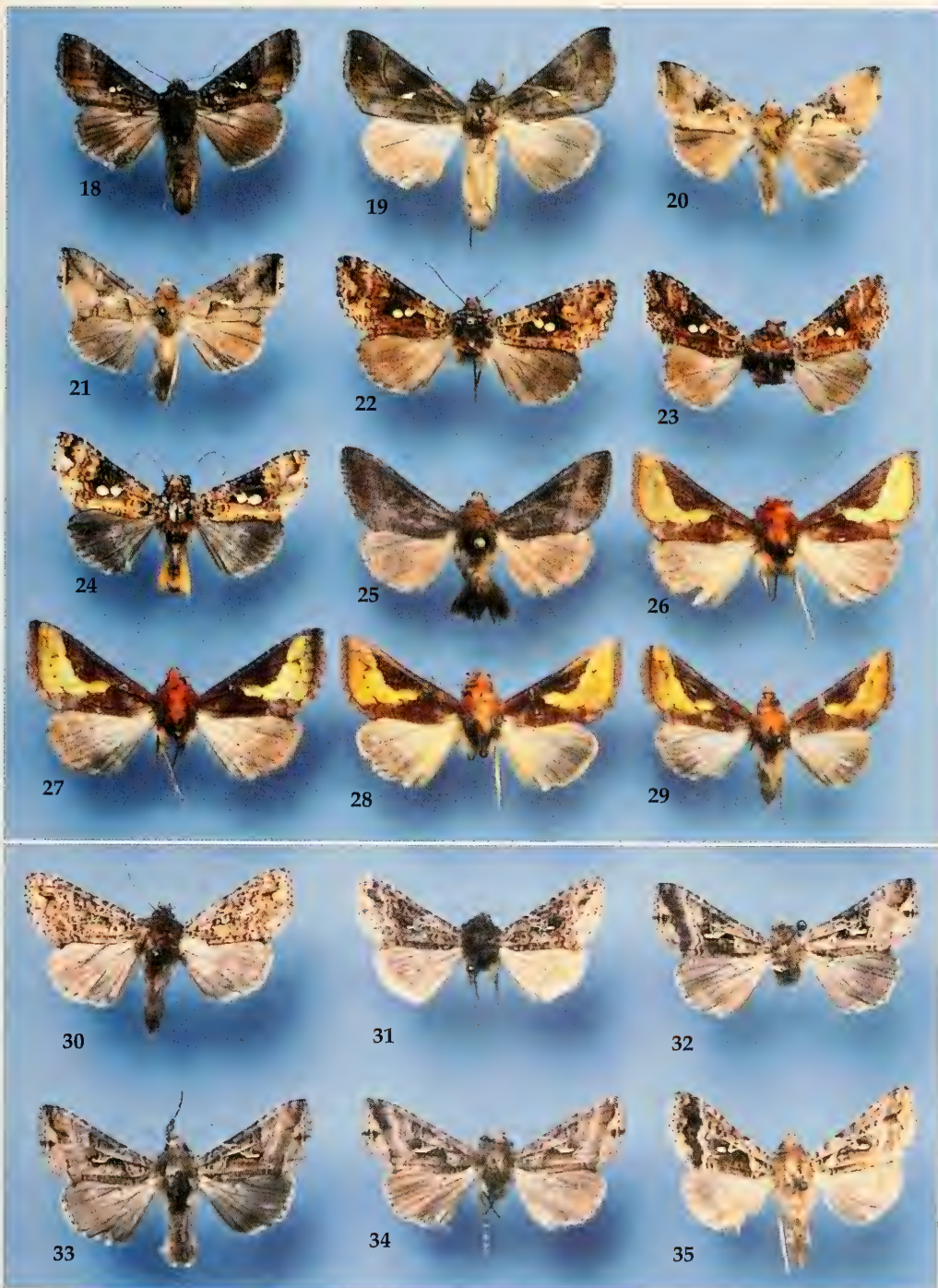




Plate 2



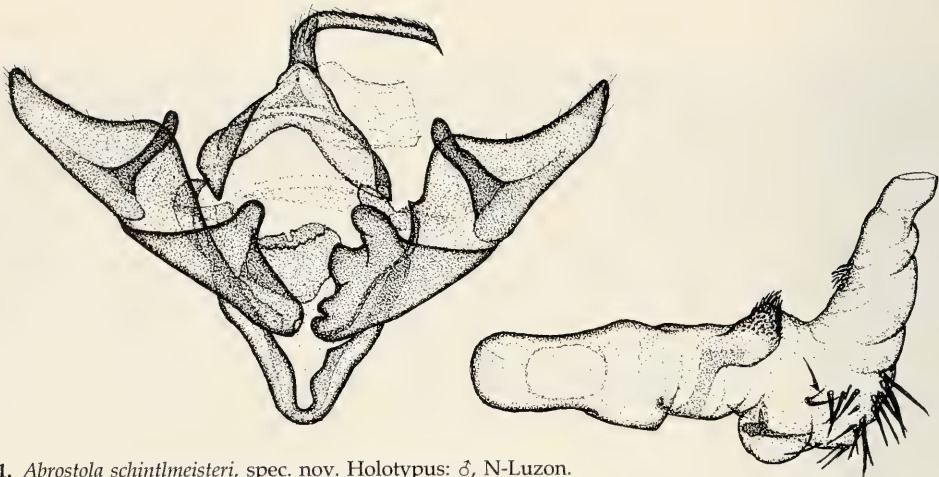


Fig. 1. *Abrostola schintlmeisteri*, spec. nov. Holotypus: ♂, N-Luzon.

#### ◁ Plate 1

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|---|---------------------------|
| Fig. 1. <i>Abrostola schintlmeisteri</i> sp.n.  | Holotypus: ♂, N-Luzon,    |
| Fig. 2. <i>Chrysodeixis</i> ( <i>Chrysodeixis</i> ) <i>goergneri</i> sp.n.                | Holotypus: ♂, Malaysia,   |
| Fig. 3. <i>Chrysodeixis</i> ( <i>Chrysodeixis</i> ) <i>keili</i> sp.n.                    | Holotypus: ♂, S-Thailand, |
| Fig. 4. <i>Chrysodeixis</i> ( <i>Chrysodeixis</i> ) <i>keili</i> sp.n.                    | Paratypus: ♀, S-Thailand, |
| Fig. 5. <i>Chrysodeixis</i> ( <i>Chrysodeixis</i> ) <i>similaris</i> sp.n.                | Holotypus: ♂, N-Luzon,    |
| Fig. 6. <i>Chrysodeixis</i> ( <i>Chrysodeixis</i> ) <i>similis</i> sp.n.                  | Holotypus: ♂, N-Luzon,    |
| Fig. 7. <i>Chrysodeixis</i> ( <i>Chrysodeixis</i> ) <i>imitans</i> sp.n.                  | Holotypus: ♂, Flores,     |
| Fig. 8. <i>Chrysodeixis</i> ( <i>Chrysodeixis</i> ) <i>imitans</i> sp.n.                  | Paratypus: ♀, Sumbaea,    |
| Fig. 9. <i>Chrysodeixis</i> ( <i>Chrysodeixis</i> ) <i>permissa</i> (Walker, 1858)        | ♀, S-India                |
| Fig. 10. <i>Chrysodeixis</i> ( <i>Chrysodeixis</i> ) <i>dinawa</i> (Bethune-Baker, 1906)  | ♂, Ceram,                 |
| Fig. 11. <i>Chrysodeixis</i> ( <i>Chrysodeixis</i> ) <i>dinawa</i> (Bethune-Baker, 1906)  | ♂, Irian Jaya,            |
| Fig. 12. <i>Chrysodeixis</i> ( <i>Chrysodeixis</i> ) <i>kebeana</i> (Bethune-Baker, 1906) | ♂, Irian Jaya             |
| Fig. 13. <i>Ctenoplusia</i> ( <i>Acanthoplusia</i> ) <i>javana</i> sp.n.                  | Holotypus: ♂, Java,       |
| Fig. 14. <i>Chrysodeixis</i> ( <i>Chrysodeixis</i> ) <i>herbuloti</i> Dufay, 1982         | ♂, N-Luzon,               |
| Fig. 15. <i>Ctenoplusia</i> ( <i>Ctenoplusia</i> ) <i>placida sundicata</i> ssp.n.        | Paratypus: ♂, Timor,      |
| Fig. 16. <i>Ctenoplusia</i> ( <i>Ctenoplusia</i> ) <i>placida sundicata</i> ssp.n.        | Paratypus: ♂, Timor,      |
| Fig. 17. <i>Ctenoplusia</i> ( <i>Ctenoplusia</i> ) <i>sumbawana</i> sp.n.                 | Holotypus: ♂, Sumbawa,    |

#### Plate 2

- |   |                         |
|---|-------------------------|
| Fig. 18. <i>Chrysodeixis</i> ( <i>Chrysodeixis</i> ) <i>minutus</i> Dufay, 1970               | ♂, Taiwan               |
| Fig. 19. <i>Chrysodeixis</i> ( <i>Chrysodeixis</i> ) <i>kebea</i> (Bethune-Baker, 1906)       | ♂, Irian Jaya           |
| Fig. 20. <i>Chrysodeixis</i> ( <i>Chrysodeixis</i> ) <i>diehli</i> Dufay, 1982                | ♂, N-Nias,              |
| Fig. 21. <i>Chrysodeixis</i> ( <i>Chrysodeixis</i> ) <i>pleiostes</i> Dufay, 1982             | ♂, Flores,              |
| Fig. 22. <i>Chrysodeixis</i> ( <i>Chrysodeixis</i> ) <i>papuasiae</i> Dufay, 1970             | ♂, New Guinea,          |
| Fig. 23. <i>Chrysodeixis</i> ( <i>Chrysodeixis</i> ) <i>papuasiae</i> Dufay, 1970             | ♂, New Guinea,          |
| Fig. 24. <i>Chrysodeixis</i> ( <i>Chrysodeixis</i> ) <i>luzonensis</i> (Wileman & West; 1929) | ♂, N-Luzon,             |
| Fig. 25. <i>Thysanoplusia reticulata</i> (Moore, 1882)  | ♂, Sumatra              |
| Fig. 26. <i>Thysanoplusia cernyi</i> sp.n.  | Holotypus: ♂, N-Luzon,  |
| Fig. 27. <i>Thysanoplusia cernyi</i> sp.n.  | Paratypus: ♀, N-Luzon,  |
| Fig. 28. <i>Thysanoplusia brechlini</i> sp.n.   | Holotypus: ♂, Timor,    |
| Fig. 29. <i>Thysanoplusia brechlini</i> sp.n.   | Paratypus: ♀, Flores,   |
| Fig. 30. <i>Ctenoplusia</i> ( <i>Acanthoplusia</i> ) <i>armata</i> sp.n.                      | Paratypus: ♂, Mindanao, |
| Fig. 31. <i>Ctenoplusia</i> ( <i>Acanthoplusia</i> ) <i>armata</i> sp.n.                      | Holotypus: ♂, Mindanao, |
| Fig. 32. <i>Ctenoplusia</i> ( <i>Acanthoplusia</i> ) <i>latistigma sulawesiana</i> ssp.n.     | Holotypus: ♂, Flores    |
| Fig. 33. <i>Ctenoplusia</i> ( <i>Acanthoplusia</i> ) <i>latistigma floresiana</i> ssp.n.      | Holotypus: ♂, Flores    |
| Fig. 34. <i>Ctenoplusia</i> ( <i>Acanthoplusia</i> ) <i>latistigma floresiana</i> ssp.n.      | Paratypus: ♂, Flores    |
| Fig. 35. <i>Ctenoplusia</i> ( <i>Acanthoplusia</i> ) <i>dufayi</i> sp.n.                      | Paratypus: ♂, N-Luzon.  |



Comparing the ♀ genitalia of the two species, *A. schintlmeisteri* has shorter, somewhat broader ostium bursae and larger but significantly weaker medial part of ductus bursae, without strongly sclerotized crests which present, well-developed in *A. suisharyonis*.

### Description

Wingspan 38 mm, length of forewing 17 mm. Head, collar and thorax dark brownish grey, mixed with blackish and a few ochreous; thoracic tufts very large, orange-ochreous marked with dark grey. Antennae of both sexes filiform. Abdomen dark brownish grey, dorsal crest strong, blackish. Forewing elongated, rather narrow triangular with apex pointed, outer margin evenly arcuate, finely crenate. Ground colour shining plumbeous grey, irrorated intensely with ochreous- or reddish brown in most parts of wing, costal area and cell suffused with blackish grey. Basal field covered with ochreous-reddish, marked with a few blackish scales. Ante- and postmedial crosslines rather distinct, slightly sinuous, partly double, blackish grey with reddish-brown definition, upper third of postmedial rather diffuse, represented by a red-brownish shadow. Medial area wide, orbicular and reniform stigmata relatively large, almost completely encircled with blackish, filled with paler grey, ochreous and a few dark grey scales. Subcellular stigma slightly larger than orbicular, rounded, marked with blackish and red-brown; claviform deleted. Subterminal a diffuse, sinuous, ochreous-whitish stripe, defined by three blackish apical streaks and a few indistinct, dark patches ("arrowheads"). Terminal line fine, continuous, blackish; cilia dark brownish grey spotted with ochreous-greyish. Hindwing shining whitish-ochreous, irrorated strongly with cupreous brown, marginal area wide, uniformly dark brown; veins covered with brown, discal spot present, rather pale, lunulate. Terminal line ochreous, cilia whitish with dark brown spots.

♂ genitalia (fig. 1). Uncus long, strong, curved at basal third, apex hooked. Tegumen low, broad, penicular lobes small. Fultura inferior (juxta) wide, cordiform, vinculum strong, V-shaped. Valvae almost symmetric, elongated, rather narrow with apex acute, costal lobe large, rounded. Sacculi short, strongly sclerotized, outer process of clavus somewhat bigger, thicker on right valva. Harpae wide-based, long, more or less flattened, apically slightly curved, somewhat stronger on right valva. Aedeagus short, thick, carina with a well-developed, terminally strongly spinose dorso-lateral plate. Vesica broadly tubular, basal half inflated, with a globular diverticulum and a digitiform, strong bar, frontal surface with numerous (about twenty) long, acute spines, distal half tapering, inner curve with a small cornuti field consisting of short spinules.

♀ genitalia (fig. 2). Ovipositor strong, relatively short, papillae anales sclerotized, setose, gonapophyses rather short. Ostium bursae sclerotized, more or less quadrangular with more or less rounded lateral lobes on both sides. Terminal part of ductus bursae tubular, rather narrow, medial part dilated, discoidal, wrinkled, granulose, proximal part tapering, rugulose. Cervix bursae small, semiglobular, finely granulose, corpus bursae long, constricted at middle, fundus somewhat broader, rounded.

**Bionomics and distribution.** *A. schintlmeisteri* occur the higher mountains of the Island Luzon. First record of the genus *Abrostola* southwards of the Asian mainland.

**Etymology.** The new species is dedicated to Dr. Alexander Schintlmeister.

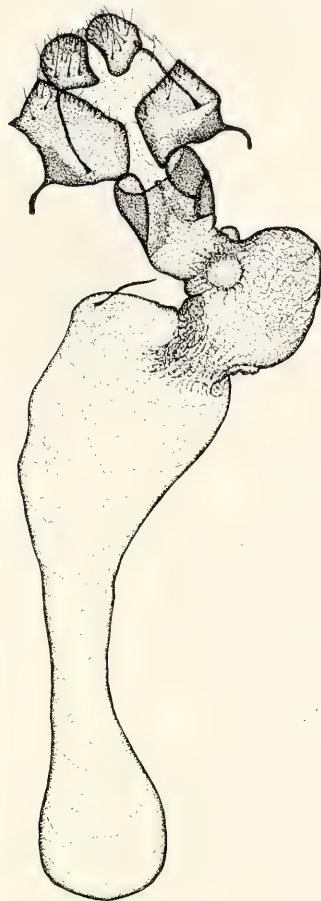


Fig. 2. *Abrostola schintlmeisteri*, spec. nov. Paratypus: ♀, N-Luzon.

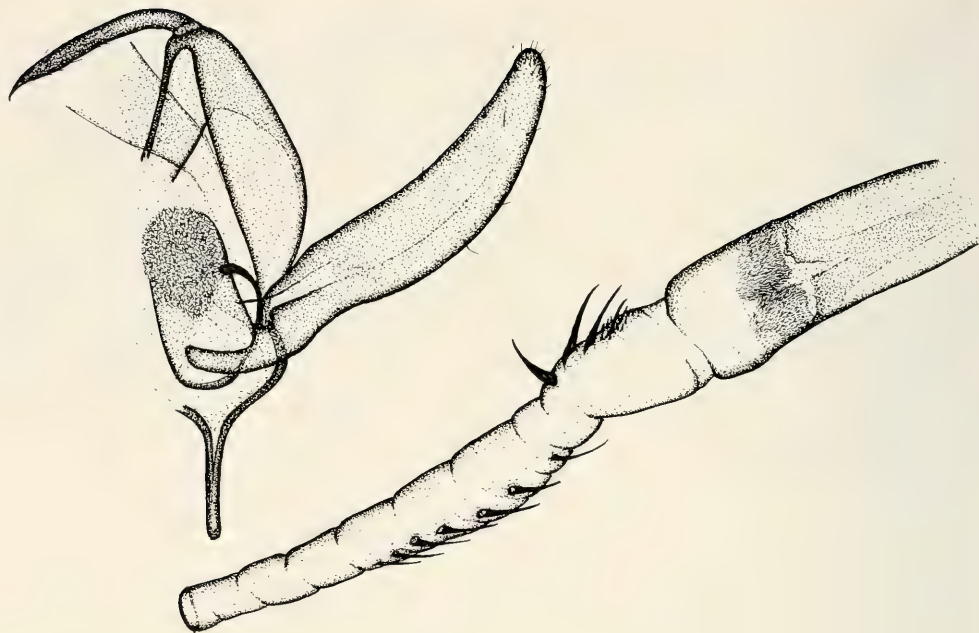


Fig. 3. *Chrysodeixis (Chrysodeixis) goergneri*, spec. nov. Holotypus: ♂, Malaysia.

*Chrysodeixis (Chrysodeixis) goergneri*, spec. nov.

Plate 1, fig. 2, text-fig. 3

**Types.** Holotype: ♂, "Malaysia, Perak-Prov., 8 km NNE Jelei, 17.1.1994, leg. Görgner" (coll. MNKV, Dessau) (Slide No. 5177 Behounek). – Paratypes: 1♂, Malaysia. Selangor, Ulu Gombak, 30 km nördl. Kuala Lumpur, 22. Feb. 1984, leg. Nässig (coll. Behounek); 8♂♂, Perak, 8 km NNE Jelei, 17.1.1994, leg. Görgner (coll. MNKV, Dessau); 1♂, with the same data (coll. Behounek) (Slide Nos. HS073, 5193 Behounek, ♂♂).

**Diagnosis.** The new species is closely related to *C. diehli* Dufay, 1982, *D. chrysopepla* Ronkay, 1989, *C. dinawa* (Bethune-Baker, 1906) and *C. plesiostes* Dufay, 1982, these taxa are regularly hardly separable by the external features, the examination of the genitalia is required for the satisfactory identification.

The ♂ genitalia differ from those of *C. diehli* and *D. chrysopepla* by the medially broadened, apically more elongated, pointed valva, resembling more to that of *C. plesiostes*, the shorter clavus and the stronger, larger cornuti of the vesica; from those of *C. plesiostes* by the stronger, thicker, more curved cornuti, forming a shorter row in the medial tube of the vesica. The ♂ genitalia of *C. dinawa*, the fifth species of the group, differ relatively strongly from those of the other species by its larger, apically less tapering valvae with more rounded apex and the basal bulb of the vesica is covered with a great amount of short spiculi.

### Description

Wingspan 25-26 mm, length of forewing 11-12 mm. Head and thorax pale brownish white, fronts covered with whitish-ochreous hairs, sides of palpi dark brown. Antenna of ♂ thin, long, filiform. Tegulae rather distinct, marked with ochreous-brown, metathoracic tuft large, ochreous-brownish. Forewing rather short, high triangular with apex pointed, outer margin with a slight medial angle. Ground colour pale whitish grey with intense metallic golden brilliance, irrorated with ochreous brown, especially below cell. Basal area almost uniformly whitish, marked with a blackish spot, antemedial line double, whitish and brown, straight below cell. Medial area relatively wide, upper part darkened, grey-brown, darkest part of wing; lower part shining golden-ochreous. Orbicular stigma flattened, small, reniform larger, narrow, incompletely encircled with dark grey, filled with paler grey. Stigma small, silvery, separated into a small, oblique U-mark and a more or less rounded spot.



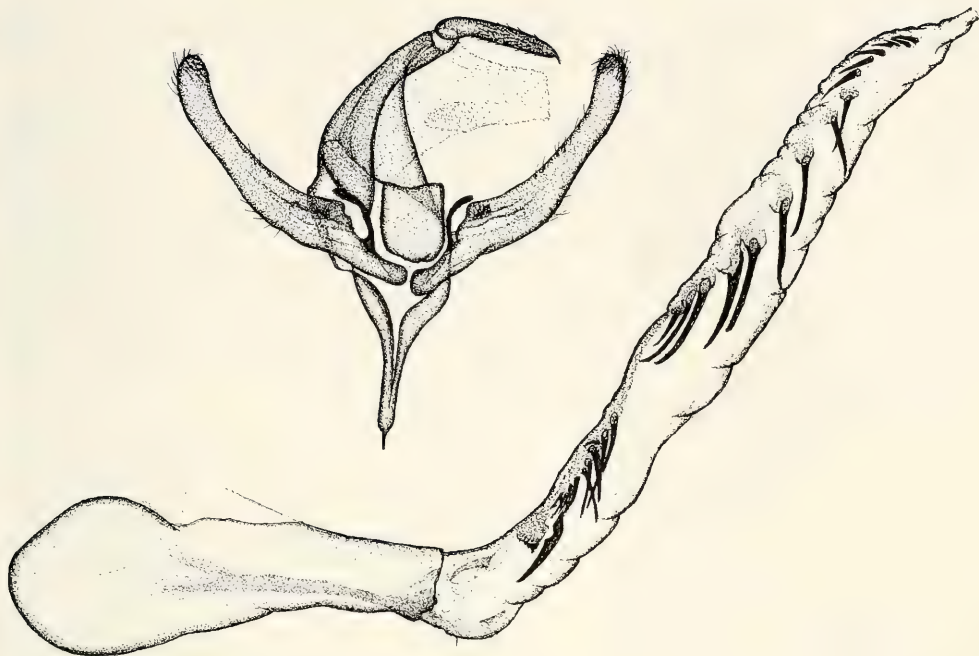


Fig. 4. *Chrysodeixis (Chrysodeixis) keili*, spec. nov. Holotypus: ♂, S-Thailand.

Postmedial line double, almost straight, slightly sinuous, angled inwards below stigma; darker brown filled with whitish grey. Subterminal obsolescent, strongly waved, defined by a darker apical patch and a slightly darker inner stripe. Terminal line brown, defined by a pinkish white line and a few blackish dots. Cilia whitish, spotted with pale brown and a conspicuous black spot at vein m3. Hindwing ochreous brown, veins covered with darker brown, inner area with weaker, marginal field with intense dark brown suffusion. Discal spot obsolescent, transverse line stronger, well-discernible; cilia whitish with a few small brownish spots. Underside of wings whitish-ochreous with strong, dark brown irroration in medial areas of both wings, transverse lines present, discal spots pale.

♂ genitalia (fig. 3). Uncus long, almost straight, only slightly curved at base, apex with long, flat hook. Tegumen high, narrow, fultura inferior subrectangular, rather high, vinculum fine, medium-long, constricted below saccular margin. Valva elongated, medially dilated with arcuate ventral margin, apex long, pointed. Clavus medium-long, apically dilated, setose, harpe reduced. Aedeagus long, cylindrical, with a sclerotized, distally bifurcated ventral sclerotized ribbon. Vesica tubular, basal part somewhat broader, armed with a few minute spines and 3-4 large, strong, curved cornuti, medial part with a row of 6-7 rather strong, wide-based, curved spines.

**Distribution.** This species is only known from Malaysia

**Etymology.** The new species is dedicated to Dr. E. Görgner.

***Chrysodeixis (Chrysodeixis) keili*, spec. nov.**

Plate 1, figs 3, 4, text-figs 4, 5

**Types.** Holotype: ♂, "S-Thailand, Khao Lak-Nationalpark, 100 km nördl. Phuket, 0-50 m, 5.-16.1.1993, leg. Keil" (coll. Behounek, coll. ZSM, Munich) (Slide No. 5026 Behounek). – **Paratype:** 1♀, Thailand, Khao Lak, Nang Tong Bay, Resort II, 17-20.11.1997, leg. Keller (coll. HNHM, Budapest) (Slide No. RL6117, ♀).

**Diagnosis.** The new species is similar externally to *C. chalcites* (Esper, 1789) and *C. eriosoma* (Double-day, 1842) but the forewing pattern is less distinct, the ante- and postmedial crosslines, especially the



Fig. 5. *Chrysodeixis (Chrysodeixis) keili*, spec. nov. Paratypus: ♀, S-Thailand.

with blackish, dark grey and bronze-brown. Stigma large, golden-silvery, separated into two parts, inner spot slightly smaller, more or less V-shaped, outer spot rounded, stigma surrounded by a dark brown patch with reddish-bronze iridescence. Postmedial line rather indistinct, sinuous, double, diffuse, defined with a violet-greyish stripe. Subterminal line sinuous, defined by a darker inner zone. Terminal line interrupted, brownish followed by a thin whitish line, cilia ochreous white, spotted with dark brown. Hindwing pale ochreous-brownish, marginal suffusion strong, dark brown, veins also brownish; cilia ochreous-whitish with brownish spots. Underside of wings ochreous-whitish, forewing and costal area and outer half of hindwing suffused strongly with dark brown, traces of stigma clearly visible, discal spot of hindwing diffuse.

♂ genitalia (fig. 4). Genital capsula strongly sclerotized, simplified, rather small, aedeagus almost as long, thick. Uncus short, straight, strong, apically hooked, tegumen medium-high, narrow, fulcrum inferior large, slightly rounded quadrangular, vinculum shorter than tegumen, narrowly V-shaped. Valva short, narrow, arcuate, distally tapering, apical part finely dilated with apex rounded, setose. Sacculus short, narrow, clavus medium-long, curved, apically dilated, having sensory setae. Pulvillus

upper part of the antemedial line are more diffuse, paler, the hindwing is also paler, more ochreous with less darkened marginal suffusion.

The ♂ genitalia differ from the related two species by its somewhat longer, apically slightly dilated valvae with less expressed ventral angle, significantly shorter vinculum and different armature of vesica. *C. keili* has the basal cornuti stronger, the first items of the medial row much shorter, weaker than those of *C. chalcites* and *C. eriosoma*, the total amount of the cornuti is larger in the new species. The third related species, *C. illuminata* Robinson, 1968 has the valvae much broader, apically less tapering, the armature of vesica reduced to a few subbasal spines and a remote terminal cornutus.

The ♀ genitalia are very similar to those of *C. chalcites* and *C. eriosoma*, differing from the former by its shorter, broader ductus bursae, from the latter by its less sclerotized proximal part of ductus bursae, lacking the stronger sclerotized crests present in *C. eriosoma*, the sclerotized patch of the corpus bursae is also smaller, weaker.

### Description

Wingspan 34 mm, length of forewing 16 mm. Head and thorax dark red-brown mixed with orange-ochreous and violet, tip of collar, tegulae and metathoracic tuft marked with whitish. Abdomen ochreous, dorsal crest strong, blackish-brown. Forewing elongated, relatively high with apex pointed, ground colour pale ochreous brown with intense metallic golden-bronze brilliance, variegated with pale violet-grey, red-brown and a few blackish and whitish. Basal area narrow, suffused with pinkish-violet grey, subbasal streak represented by a rounded dark patch. Antemedial line oblique, slightly sinuous, rather indistinct, marked with pinkish white. Medial area broad, upper part suffused with dark grey-brown, darkest part of wing, lower half red-brownish with golden shining. Orbicular and reniform stigmata small, former flattened, encircled with pinkish white, filled with greyish, latter narrow, constricted at middle, encircled





Fig. 6. *Chrysodeixis (Chrysodeixis) similaris*, spec. nov. Paratypus: ♂, N-Luzon.

short, setose, harpe reduced. Aedeagus cylindrical, ventral sclerotized lamina short, relatively weak. Vesica long, broadly tubular with a fine sclerotized bar running along tube of vesica. Basal part with two larger cornuti, a small bundle of short spinules and a short row of longer, acute spines. Distal half armed with a long row of wide-based cornuti, longest items situated at middle of this row, terminal part with short, strong thorns.

♀ genitalia (fig. 5). Ovipositor short, weak, gonapophyses short, fine. Ostium bursae membranous, with a collar-like proximal sclerotized zone and a small, gelatinous, finger-like lateral appendix. Ductus bursae rather short, medially broadened, gelatinous-hyaline, proximal part constricted, hyaline with fine scobination, without sclerotized crests or ribs. Corpus bursae elongated-saccate, most parts membranous with fine scobination; with a rather large medio-lateral sclerotized plate with stronger crests. Cervix bursae small, hyaline, falciform, situated at proximal end of bursa copulatrix.

**Bionomics and distribution.** This species is only known from the lowland of South Thailand.

**Etymology.** The new species is dedicated to Mr. Norbert Keil.

*Chrysodeixis (Chrysodeixis) similaris*, spec. nov.

Plate 1 fig. 5, text-figs 6, 7

**Types.** Holotype: ♂, "Philippines, Ifugao, Banaue, 20 km N Lagawe, 1200 m, 16°45'E, 121°05'E, 8-12.02.1988, leg. Cerny" (HNHM Budapest) (slide No. RL3216). – Paratypes: 1♂, Philippines. N Luzon, with same data as the holotype; 3♂♂, 1♀, from the same locality, 22.09-16.10.1988, leg. Cerny & Schintlmeister; 1♂, Prov. Ifugao, Kinakin, 5 km E Banaue, 1200 m, 21.07.1993, leg. Michael Schaarschmidt; 1♂, from the same locality, 5.8.1993, leg. Mario Graul (coll. Behounek and HNHM) (Slide Nos. RL3151, RL4780, RL4781, RL4782, RL4789, RL4800, ♂♂, RL4801, ♀).

**Diagnosis.** The new species belongs to the *C. minutus* species-group consisting of seven, externally more or less similar, often hardly distinguishable species, *C. minutus* Dufay, 1970, *C. minutoides* Holloway, 1985, *C. politus* Dufay, 1970 and two newly discovered ones, *C. similis*, spec. nov. and *C. similaris*, spec. nov. The two other taxa, *C. papuasiae* Dufay, 1970, *C. imitans*, spec. nov., resembling also to *C. luzonensis* (Wileman et West, 1929), and *C. taiwani* Dufay, 1974, show also closer connections with this group by the features of the ♂ genitalia.

*C. similaris* is confusingly similar in appearance to *C. minutus*, *C. similis* and *C. minutoides*, the satisfactory identification requires the study of the genitalia. *C. politus* and *C. imitans* are generally



Fig. 7. *Chrysodeixis (Chrysodeixis) similaris*, spec. nov. Paratypus: ♀, N-Luzon.

golden-bronze shining, basal field, cell and costal area around postmedial line suffused with violet-grey. Basal area narrow, subbasal line fine, straight, silvery, subbasal streak a short, blackish patch. Ante- and postmedial lines slightly sinuous, silvery-whitish and dark brown, former oblique, latter strongly angled inwards below stigma. Orbicular and reniform stigmata less defined, small, former encircled with pinkish white, filled with greyish, latter narrow, obsolescent. Stigma small, silvery, separated into two parts, inner spot a minute V, outer spot larger, rounded. Subterminal line obsolescent, interrupted, sinuous, whitish, outer part of marginal area with weak whitish irroration. Terminal line a row of tiny dark triangles followed by a fine violet-whitish line, cilia pale violet-greyish, spotted with dark brown. Hindwing ochreous-whitish, inner half irrorated, marginal area strongly suffused with dark brown, veins also brownish, discal spot absent or very pale; cilia ochreous with brownish spots. Underside of wings ochreous-whitish, forewing and costal area and outer half of hindwing suffused strongly with dark brown, marginal fields irrorated also with some greyish. Traces of stigma clearly visible, discal spot of hindwing diffuse.

larger in size with stronger body and longer, more pointed, more glossy forewings with more contrast pattern, larger stigma, its outer spot is conspicuously large, rounded, etc.

The ♂ genitalia of the related species differ often surprisingly strongly, the species are easily recognisable by their genital characteristics. *C. similaris* differs from *C. minutus* and *C. similis* by its significantly longer, narrower, more arcuate valva and the much larger amount of cornuti of the vesica of variable shape and size, from *C. similis* also by its much narrower uncus, from *C. minutoides* by its longer uncus, much longer, basally not angled valva and shorter vesica with much more complex armature of cornuti, from *C. papuasiae* by its narrower uncus, longer, arcuate valva, shorter vesica with generally smaller cornuti with the exception of the last two items and by the lack of the terminal small cornuti field. *C. politus* differ from all related species by its very long, tubular vesica covered with minute spiculi, armed with a medium-long, pin-like terminal cornutus.

The ♀ genitalia of *C. similaris* differ from those of *C. minutus* by its significantly longer ductus bursae with larger, more inflated discoidal part, the corpus bursae is somewhat smaller, from *C. politus* by its much shorter, less scobinate ductus bursae, larger corpus bursae with smaller, shorter cervical part.

### Description

Wingspan 30-31 mm, length of forewing 14-15 mm. Head and thorax dark chocolate-brown, tip of collar, tegulae and metathoracic tuft finely marked with whitish. Abdomen ochreous, dorsal crest strong, blackish-brown, anal tuft large, blackish. Forewing elongated, narrow with apex pointed, ground colour deep chocolate-brown with intense metallic



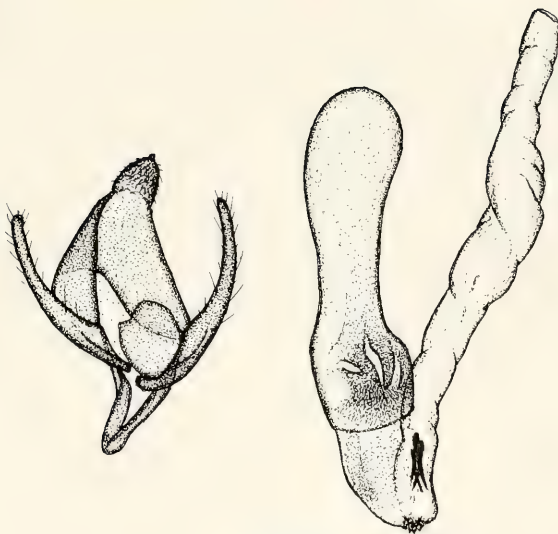


Fig. 8. *Chrysodeixis (Chrysodeixis) similis*, spec. nov. Holotypus: ♂, N-Luzon.

♂ genitalia (fig. 6). Genital capsula sclerotized, simplified, rather small, smaller than aedeagus. Uncus short, narrow, apical hook fine, tegumen medium-high, fultura inferior large, elliptical with stronger small ventral plate, vinculum slightly shorter than tegumen, fine, V-shaped. Valva long, very narrow, arcuate, apically slightly dilated with apex rounded, setose. Sacculus short, narrow, clavus and harpe reduced. Aedeagus long, thick, ventral sclerotized bar strong. Vesica relatively short, tubular, distal half partly coiling. Basal third with a dentated dorsal plate continuing in medial part in a coiling row of spinules being increasingly larger terminad, last some, large cornuti sitting on small, subconical diverticula, distal third has no cornuti.

♀ genitalia (fig. 7). Ovipositor short, weak, posterior papillae anales more or less rectangular; gonapophyses fine. Ostium bursae membranous, ductus bursae long, posterior and anterior thirds narrow, tubular, membranous with fine wrinkles, medial third strongly dilated. coiled forming a flattened, gelatinous, strongly wrinkled disc. Bursa elongated-elliptical, finely scobinate with some long, prominent folds, cervical part originating from fundus, long, narrow.

**Bionomics and distribution.** The species is known from Luzon, found in forest areas at medium high altitudes.

**Etymology.** The specific name refers to the high similarity with the other members of the *C. minutus* species-group.

*Chrysodeixis (Chrysodeixis) similis*, spec. nov.

Plate 1, fig. 6, text-fig. 8

**Holotype:** ♂, "Philippines, N-Luzon, Ifugao, Mt. Pilis, 2000 m, 16 km SSE Bontoc, 23.9.1988, leg. Cerny & Schintlmeister" (coll. Behounek, coll. ZSM, Munich) (Slide No. 4287 Behounek).

**Diagnosis.** The ♂ genitalia of *C. similis* differ from *C. minutus* and *C. papuasiae* by its much broader, shorter uncus, narrower, apically more tapering valva and the reduced armature of the vesica consisting only from four longer spines and a small field of small spiculi at its basal part; from *C. minutoides* by its conspicuously broader uncus, longer, basally not angled valva and shorter vesica without large subbasal cornutus but with a small field of denticles basally. The differences between *C. similis* and *C. similaris* are discussed in the diagnosis of *C. similaris*.

## Description

Wingspan 29 mm, length of forewing 13 mm. Head and thorax dark brown, mixed with reddish-brown, tip of collar, tegulae and metathoracic tuft finely marked with pink and with whitish. Forewing narrow, with apex pointed, ground colour deep chocolate-brown with reddish shade and with strong bronze iridescence; basal area pinkish, cell and costal area suffused with violet-grey, outer half of marginal area deep bronze-reddish. Subbasal line fine, straight, silvery, subbasal streak represented by a blackish dot. Antemedial line oblique, straight below cell, postmedial line slightly sinuous, strongly angled inwards below stigma, both crosslines dark brown filled with silvery-whitish. Orbicular stigma small, flattened, encircled with pinkish white, filled with greyish, reniform stigma less defined, narrow, obsolescent, marked with blackish spots and lines. Stigma small, silvery, separated into two parts, inner spot a minute V, outer spot somewhat larger, rounded. Subterminal line obsolescent, interrupted, sinuous, whitish, terminal line a row of tiny dark triangles followed by a fine violet-whitish line. Cilia violet-grey, spotted with darker brown. Hindwing ochreous-whitish, inner half irrorated, broad marginal area strongly suffused with cupreous brown. Veins covered with brown, discal spot obsolete; cilia whitish-ochreous, spotted with brownish.

♂ genitalia (fig. 8). Genital capsula sclerotized, simplified, rather small, smaller than aedeagus. Uncus short, broad, flattened, apical hook fine, tegumen medium-high, fultura inferior large, elliptical, vinculum considerably shorter than tegumen, V-shaped. Valva elongated, narrow, arcuate, apically tapering with apex finely rounded, setose. Saccus short, narrow, clavus and harpe reduced. Aedeagus long, thick, ventral sclerotized bar strong. Vesica relatively short, tubular, basal third with a small field of short spiculi and four longer spines.

♀ unknown.

**Bionomics and distribution.** Philippines, Luzon.

**Etymology.** The specific name refers to the high similarity with the other members of the *C. minutus* species-group.

### *Chrysodeixis (Chrysodeixis) imitans*, spec. nov.

Plate 1, figs 7, 8, text-fig. 9

**Types.** Holotype: ♂, "Indonesia, Flores, Prov. Nusa Tenggara Timur Gunung, etc., 9 km E Rutang, 1140 m, 14-15.IV.1996, leg. Brechlin" (HNHM, Budapest) (Slide No. RL5761). – Paratypes: 8♂♂, Indonesia. Sumbawa, Prov. Nusa Tenggara Barat, Gunung (=Mt.) Tambora (W) 10 km E Tambora, 1020 m, primary forest, 14-15.3.1996, leg. R. Brechlin; 2♂♂, Flores, Prov. Nusa Tenggara Timur Gunung (=Mt.) Ranaka (N) 9 km E Rutang, 1140 m, secondary-primary forest, 14-15.4.1996, leg. R. Brechlin; 1♂, Prov. Nusa Tenggara Timur Gunung (=Mt.) 3 km S Mano, (18 km SE Rutang) 1270 m, primary forest, 17-21.4.1996, leg. R. Brechlin (colls. Behounek, HNHM, Budapest, and Krusek) (Slide Nos. 5211, 5212, 5237, Behounek, RL6118, RL6119, ♂♂).

**Diagnosis.** The new species is externally very similar to *C. papuasiae*, differing only by its somewhat narrower, longer, slightly darker, more variegated forewings with less intense golden brilliance, somewhat stronger whitish irroration in the basal area and the upper third of the postmedial line is more straight, less sinuous. In spite of this high external similarity, the ♂ genitalia of *C. imitans* differ conspicuously from those of *C. papuasiae* by its longer uncus, narrower, longer valva with parallel margins and the much longer, broadly tubular vesica armed with a row of tiny denticles near at base and a long, pin-like terminal cornutus; from *C. luzonensis* by its much shorter uncus and valva, the lack of the harpe and the longer vesica having pin-like terminal cornutus but lacking the long subbasal stripe of minute spiculi.

The size, the wing shape and the ♂ genitalia of *C. imitans*, spec. nov. are very close to those of *C. politus* but the wing pattern is much more variegated, especially in basal, costal and marginal fields, the pale violet-greyish areas are reduced, less homogeneous, the golden brilliance is more intense. In the ♂ genitalia the uncus and the valva of the new species are somewhat longer, latter with more parallel margins from base to tip; the configuration of the vesica is surprisingly similar in the two closely related taxa.



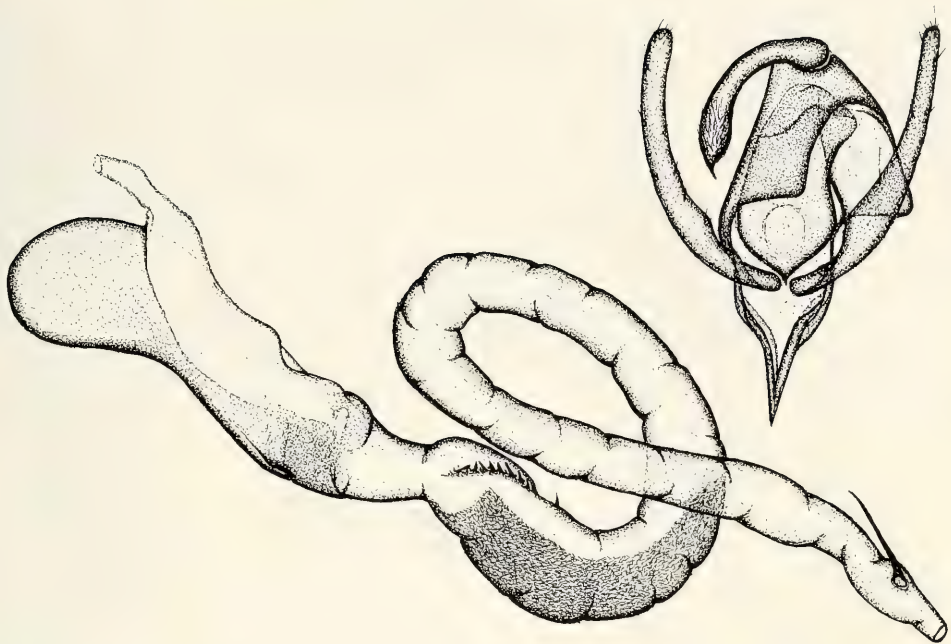


Fig. 9. *Chrysodeixis* (*Chrysodeixis*) *imitans*, spec. nov. Paratypus: ♂, Flores.

### Description

Wingspan 31 mm, length of forewing 15 mm. Head and thorax dark chocolate-brown, tip of collar, tegulae and metathoracic tuft marked with whitish. Abdomen ochreous, dorsal crest strong, blackish-brown. Forewing elongated, relatively high with apex pointed, ground colour dark brown with intense metallic golden-bronze brilliance, variegated with dark grey, blackish and whitish. Basal area narrow, suffused with pinkish white, subbasal streak a short, dark patch. Antemedial line oblique, slightly sinuous, marked with pinkish white. Medial area broad, orbicular and reniform stigmata small, former encircled with pinkish white, filled with greyish, latter narrow, constricted at middle, encircled with a fine whitish line, marked with blackish and bronze-brown. Stigma large, golden-silvery, separated into two parts, inner spot slightly smaller, more or less V-shaped, filled, outer spot large, rounded, stigma surrounded by a dark brown patch with violet-bronze iridescence. Postmedial line strongly sinuous, double, defined with whitish, deeply angled inwards below stigma. Subterminal line sinuous, whitish, outer part of marginal area irrorated with whitish. Terminal line a row of tiny dark triangles followed by small white arches, cilia pinkish white, spotted with dark brown. Hindwing ochreous-whitish, marginal area broad, suffused with dark brown, veins also brownish; cilia ochreous with brownish spots. Underside of wings ochreous-whitish, forewing and costal area and outer half of hindwing suffused strongly with dark brown, traces of stigma clearly visible, discal spot of hindwing diffuse.

♂ genitalia (fig. 9). Genital capsula simplified, rather small, smaller than aedeagus. Uncus medium-long, thick, apically finely hooked, tegumen low, fultura inferior large, elliptical, vinculum short, V-shaped. Valva elongated, narrow, arcuate, its margins almost parallel from base to tip. Saccus short, narrow, clavus and harpe reduced. Aedeagus long, thick, ventral sclerotized bar strong. Vesica very long, broadly tubular, basal area with a short row of small denticles, medial third covered partly with minute spiculi, terminal part with a long, pin-like cornutus.

♀ unknown.

**Bionomics and distribution.** Flores, Sumbawa.

**Etymology.** The specific name refers to the high similarity of the genitalia of the new species compared with those of *C. politus*, in spite of the rather conspicuous differences in their external appearance.



Fig. 10. *Thysanoplusia cernyi*, spec. nov. Holotypus: ♂, N-Luzon.

*Thysanoplusia cernyi*, spec. nov.

Plate 2, figs 26, 27, text-figs 10, 11

**Types.** Holotype: ♂, "Philippines, N-Luzon, Mts. Prov. Chatol, 15 km südöstl. Bontoc, 17°02' nördl. Breite/121°02' östl. Länge, [Nebelurwald], 1600 m, 24.9., 14.10.1988, leg. K. Cerny & A. Schintlmeister" (coll. Behounek, coll. ZSM, Munich) (Slide No. 5110 m Behounek). – Paratypes: 1♀, Philippines, Luzon, Mts. Prov., Mt. Data, 2250 m, 50 km SW Bontoc, 16°52' N, 120°50' E, ["Nebelwald", Pinus plantation.], 13.10.1988, leg. K. Cerny & A. Schintlmeister (coll. Behounek); 7♂♂, Prov. Bontoc, Chatol, 15 km E Bontoc 1800 m, 23.07.1993, leg. M. Graul (colls. Behounek, Krusek, Graul, HNHM Bp.); 5♂♂, Prov. Ifugao, Mt. Polis, 20 km N Banaue, 1600 m, 26-31.07.1993, leg. M. Graul (colls. Behounek, Graul, HNHM, Budapest); 3♂♂, 3♀♀, Prov. Bontoc, Mt. Data Hotel, 10 km E Bontoc 1900 m, 02.08.1993, leg. M. Graul (colls. Behounek, Graul, HNHM, Budapest) (Slide Nos. 5220 Behounek, RL4784, RL4785 Ronkay, ♂♂, 5110, 5217 Behounek, RL4471, RL4785 Ronkay, ♀♀).

**Diagnosis.** The *Thysanoplusia intermixta*-group has been revised by Behounek and Ronkay (1996). The newly elaborated material from the Sundaland revealed a much stronger fragmentation of the species-group than it was supposed earlier, there are further, formerly unknown species of the group occurring in Luzon (*T. cernyi*, spec. nov.) and in Flores and Timor (*T. brechlini*, spec. nov.). On the other hand, *T. aureopicta* Behounek and Ronkay, 1996 represents probably also two species as the typical populations from New Guinea and its closer islands differ from the larger series of specimens found in N Luzon.

Externally *T. cernyi* differs from the related taxa by the shape and size of the golden area. This area is clean, sharply finished at the first anal vein, its margin being parallel with inner margin, does not extending towards to tornal part of the wing, like in *T. aureopicta* (s. l.) and *T. brechlini*. The golden area of *T. intermixta* has terminated also at the first anal vein but its margin is not so sharply defined, the inner extension is shorter, broader, directed more obliquely towards the cell.

The ♂ genitalia of *T. cernyi* differ from the related species by its simple, rather short terminal cornutus of the vesica, in addition, the basal, spiculiferous part is shorter, less than half of the total

length of the vesica (this latter feature is common with *T. brechlini*). The genital capsula of the new species resembles mostly to that of *T. intermixta*, but the vinculum is less splayed, the cucullus is less dilated and the harpe is somewhat longer, stronger. The vinculum is less splayed than that of *T. aureopicta*, without concave tip, the valva is narrower, more elongated, the clavus is somewhat longer, the harpe is finer.

The ♀ genitalia of *T. cernyi* is most similar to those of *T. intermixta* but the ductus bursae is longer with the proximal end less twisted, the sclerotized plate is considerably longer, stronger. The ductus bursae of *T. aureopicta* is similarly long but its proximal end is practically not twisted and the sclerotized plate is reduced.

The comparison of the genitalia of *T. cernyi* and *T. brechlini* is given in the diagnosis of *T. brechlini*.

### Description

Wingspan 33–34 mm, length of forewing 16–17 mm. Head, collar and prothoracic tuft orange-reddish, tegulae and metathorax dark violaceous red-brown mixed with whitish. Abdomen ochreous mixed with reddish-brown, dorsal crest blackish and red-brown, anal tuft dark red-brown and yellow. Forewing elongated, rather high with apex acute, ground colour deep, shining red-brown with violaceous shade and fine dark reticulation. Basal and antemedial crosslines obsolete, sinuous, orbicular stigma small, flattened, reniform narrow, medially constricted, their outlines pale greyish. Stigma more or less quadrangular, brilliant golden, fused with large golden patch of marginal area forming a long, narrow stripe parallel with vein an1. Postmedial line dark brown marked with violaceous grey, angled inwards below cell then outwards at vein an1. Metallic patch of marginal area brilliant golden-yellow, weakly reticulate with red-brown and violaceous, its lower edge sharp, terminated at vein an1. Subterminal strongly sinuous, red-brown, regularly clearly visible. Terminal line dark brown marked with orange-brownish, cilia as ground colour, with darker brown inner line and with a few dark spots. Hindwing pale ochreous, veins and broad marginal area suffused with cupreous brown, discal spot and transverse line diffuse. Terminal line brown, cilia ochreous with darker inner line.

♂ genitalia (fig. 10). Uncus long, slender, curved, apically hooked, tegumen broad, relatively low, fultura inferior rather high, rounded, vinculum long with apical part (saccus) broadened, more or less triangular. Valva very long with more or less parallel margins, slightly tapering at medial third, cucullus slightly dilated with apex rounded, corona represented by a larger, setose field. Sacculus short, sclerotized, clavus long, slender, somewhat longer than harpe. Harpe rather strong, straight, stick-like. Aedeagus cylindrical with globular basal bulb, ventral sclerotized plate long, fine, carina with a fine, long, terminally dentated bar. Vesica tubular, narrow, slightly inflated at base, basal half covered densely with minute spiculi, terminal cornutus simple, rather short, acute, slightly curved.

♀ genitalia (fig. 11). Ovipositor rather large, weakly sclerotized, papillae anales rounded quadrangular, gonapophyses slender. Ostium bursae elongated-calyculate, finely scobinate, ductus bursae very long, narrowly tubular, membranous with only very poor granulation, its anterior end twisted, bearing an elongated, dentated, sclerotized plate at junction to bursa copulatrix. Corpus bursae ovoid, cervix bursae small, conical, both membranous with very weak granulation.

**Bionomics and distribution.** Philippines, Luzon.

**Etymology.** The new species is dedicated to Dr Karel Cerny.



Fig. 11. *Thysanoplusia cernyi*, spec. nov. Paratype: ♀, N-Luzon.



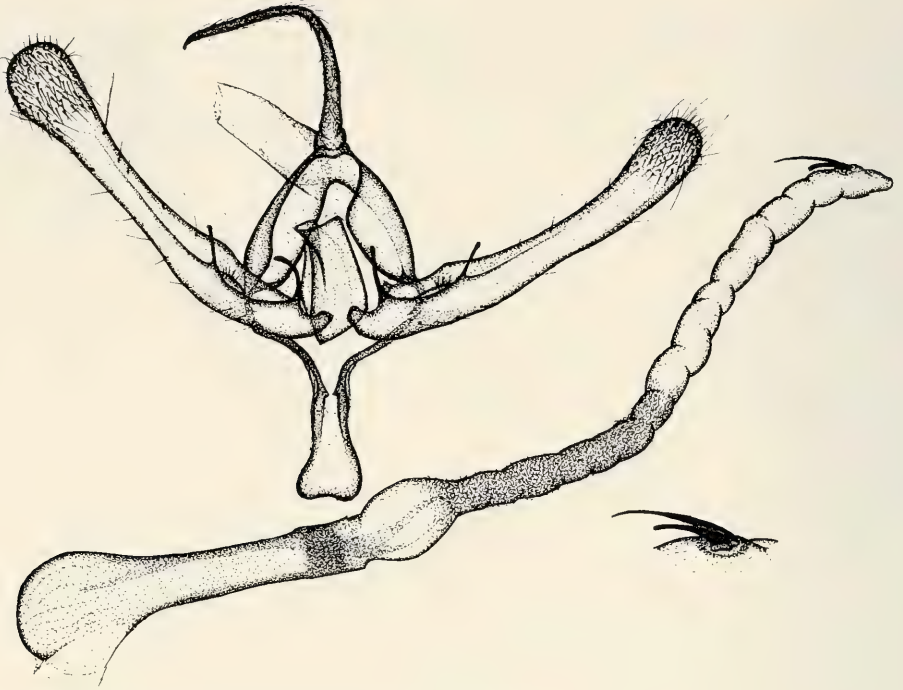


Fig. 12. *Thysanoplusia brechlini*, spec. nov. Holotypus: ♂, Timor.

*Thysanoplusia brechlini*, spec. nov.

Plate 2, figs 28, 29, text-figs 12, 13

**Types.** Holotype: ♂, "Indonesia, Flores, Prov. Nusa Tenggara Timur Gunung (=Mt.) Ranaka (N) 9km E Rutang, 1140 m Sec.-Prim. forest, 14.-15.4.1996, leg. R. Brechlin" (coll. Behounek, coll. ZSM, Munich) (Slide No. 5216 Behounek). – Paratypes: 1♂, Indonesia. Flores, with same data as holotype; 7 ex., Prov. Nusa Tenggara Timur Gunung (=Mt.) Ranaka (E) 3 km S Mano, (18 km SE Ruteng) 1270 m, primary forest, 17-21.4.1996 leg. R. Brechlin (coll. Behounek); 17 ex., Timor, Barat, Prov. Nusa Tenggara Timur, Gunung (Mt.) Mutis (S) 1460 m, Fatumnasi, 21.-23.3.1996, leg. R. Brechlin; 10 ex., Timor, Prov. Nusa Tenggara Timur, Gunung (5 km N Fatumnasi, 1730 m, primary forest, 26.3.1996, leg. R. Brechlin (colls. Behounek, Krusek, HNHM, Budapest); 3♂♂, Bali, Byan Lake, 1300 m, 8-10. Feb. 1997, leg. Cerny (coll. Behounek); 1♂ Bali, Batur, 1200 m, 8.1.1999, leg. Cerny (coll. Behounek, 1♂, 3♀♀, Bali, 5 km N. Batur, 1600 m, 11.1.1999, leg. Cerny (coll. Behounek) – 3♂♂, 3♀♀, Sulawesi, Puncak, Palopo, 900-1300 m, 2°55' S, 120°05' E, January 1997, native collector leg., ex coll. Brechlin (colls. Behounek, HNHM Budapest); 4♂♂, 2♀♀, Sulawesi, Puncak, Palopo, 900-1300 m, 2°55' S, 120°05' E, Jan.1997, leg. local collector, ex coll. Brechlin (colls Behounek, HNHM Budapest) (Slide Nos. 5220, 5297, 5298, 5298, Behounek, ♂♂, 5217, 5242, Behounek, ♀♀).

**Diagnosis.** *T. brechlini* resembles externally mostly to *T. aureopicta* by its golden area extending below the first anal vein but the inner extension is narrower, the golden area is cleaner with much weaker reticulation. The ♂ genitalia of the new species differ from the related taxa by the triple terminal cornutus of vesica, the medial one is significantly longer than the cornuti of *T. intermixta*, *T. aureopicta* and *T. cernyi*. The genital capsula is similar to those of *T. intermixta* and *T. cernyi* but the vinculum is narrower, apically less splayed, the harpe is finer and the clavus is slightly longer. The ♀ genitalia differ from those of *T. intermixta*, *T. cernyi* and *T. aureopicta* by the broader ostium bursae and the longer, narrower corpus bursae, the sclerotized plate at proximal end of ductus bursae weaker than that of *T. cernyi*.

**Description**

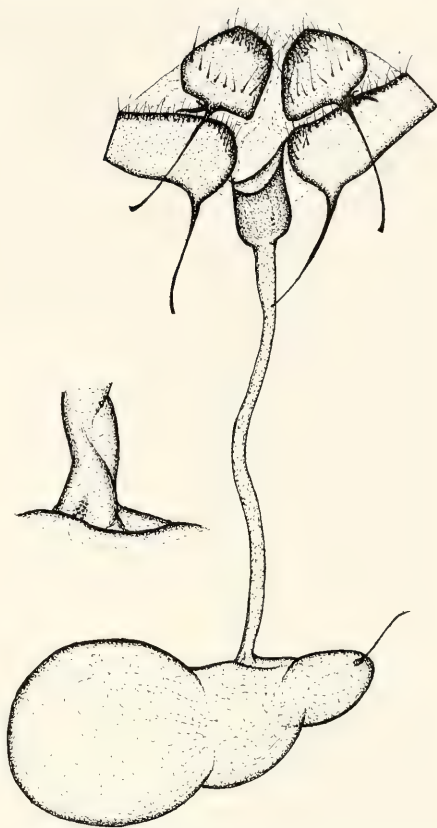
Wingspan 32-33 mm, length of forewing 16-17 mm. Head, collar and prothoracic tuft orange-brownish, tegulae and metathorax dark violaceous red-brown mixed with whitish. Abdomen ochreous mixed with reddish-brown, dorsal crest and anal tuft dark red-brown. Forewing elongated, rather high with apex acute, ground colour deep, brilliant reddish brown with violaceous shade and fine reticulation. Basal and antemedial crosslines obsolete, orbicular stigma small, flattened, reniform narrow, medially constricted, both encircled with pale greyish, filled with ground colour. Stigma large, more or less quadrangular, brilliant golden, fused partly with large golden patch of marginal area. Postmedial line sharply defined, dark brown marked with violaceous grey, angled inwards below cell then outwards at vein an1. Golden patch of marginal area brilliant golden, finely reticulate with red-brown and violaceous, its lower edge rather diffuse, extending below vein an1 in tornal area. Subterminal strongly sinuous, red-brownish, regularly clearly visible. Terminal line dark brown, cilia as ground colour, with darker brown inner line and with a few dark spots. Hindwing pale ochreous, veins and broad marginal area suffused with cupreous brown, discal spot and transverse line regularly poorly visible. Terminal line brown, cilia ochreous with darker inner line.

♂ genitalia (fig. 12). Uncus long, slender, curved, apically hooked, tegumen broad, relatively low, futura inferior high, elliptical, vinculum long with apical part (saccus) broadened, more or less triangular with rounded apices and slight medial incision. Valva very long, narrow, slightly constricted at medial third, cucullus dilated with apex rounded, corona represented by a larger, setose field. Sacculus short, sclerotized, clavus long, slender, stronger, somewhat longer than harpe. Harpe fine, straight, stick-like. Aedeagus cylindrical with globular basal part, ventral sclerotized plate long, fine, carina with a fine, long, terminally dentated bar. Vesica tubular, narrow, slightly inflated at base, proximal half covered densely with minute spiculi, terminal cornutus triple, medial one long, pin-like, lateral ones significantly shorter, less acute.

♀ genitalia (fig. 13). Ovipositor rather large, papillae anales rounded triangular, gonapophyses long, slender. Ostium bursae calyculate, scobinate, ductus bursae very long, narrowly tubular, membranous with only very poor granulation, its anterior end slightly twisted, bearing a very small, weak, dentated plate at junction to bursa copulatrix. Corpus bursae elongated-ovoid, cervix bursae relatively long, conical.

**Bionomics and distribution.** Indonesia: Bali, Flores, Timor, Sulawesi.

**Etymology.** The new species is dedicated to Dr. Ronald Brechlin.



**Fig. 13.** *Thysanoplusia brechlini*, spec. nov. Paratype: ♀, Flores.

*Ctenoplusia (Ctenoplusia) placida sundicata*, subspec. nov.

Plate 1, figs 15, 16

**Types.** Holotype: ♂, Indonesia, Timor (Barat), Prov. Nusa Tenggara Timur Gunung (=Mt.) Mutis (S), 1460 m, Fatumnasi, 21-23.3.1996, cultivated area-secondary vegetation, leg. R. Brechlin (coll. HNHN Budapest) (Slide No. RL6121). – Paratypes: 2♂♂, 3♀♀, Indonesia. Timor (Barat), Prov. Nusa Tenggara Timur Gunung (=Mt.) Mutis (S), 1730 m, 5 km N Fatumnasi, 26.3.1996, primary forest, leg. R. Brechlin; 1♂, Prov. Nusa Tenggara Timur Gunung (=Mt.) Mutis (S), 1460 m, Fatumnasi, 21-23.3.1996, cultivated area-secondary vegetation, leg. R. Brechlin, 1♀, Flores, Prov. Nusa Tenggara Timur Gunung (=Mt.) Ranaka (E) 3 km S Mano, (18 km SE Ruteng) 1270 m, primary forest, 17-21.4.1996, leg. R. Brechlin; 1♀, Prov. Nusa Tenggara Timur Gunung (=Mt.) Ranaka (N) 9 km E Rutang, 1140 m Sec.-Prim.forest, 14-15.4.1996 leg. R. Brechlin, (coll. Behounek); 1♀, Flores, Prov. Nusa Tenggara Timur Gunung (=Mt.) Ranaka (N) 9 km E Rutang, 1140 m, secondary-primary forest, 14-15.4.1996, leg. R. Brechlin (coll. Behounek); 1♀, Flores, Prov. Nusa Tenggara Timur Gunung (=Mt.) Ranaka (E) 3 km S Mano, (18 km SE Ruteng) 1270 m, primary forest, 17-21.4.1996, leg. R. Brechlin (HNHN, Budapest) (Slide Nos. RL6122, RL6123, RL6177, ♀s, 5214, Behounek, ♂, 5215, Behounek, ♀)

**Diagnosis.** The populations of *C. placida* (Moore, 1884) living in Timor and in Flores differ from the typical ones occurring in the Himalayan region, Sri Lanka, S India, Taiwan, Indochina by their somewhat shorter, higher forewings with conspicuously reticulate scaling, darkened costal area and even more straight postmedial line. The ♂ genitalia of the two subspecies are very similar in most features except the valval shape, the valva of the new subspecies is narrower, more elongated, especially the cucullus is significantly narrower, higher than those of *C. placida placida*. In addition, the vesica of the new subspecies is slightly shorter, narrower; in the ♀ genitalia the ductus bursae, *C. placida sundicata* is somewhat shorter.

**Description**

Wingspan 28-33 mm, length of forewing 13-16 mm. Head and thorax dark olive-greyish mixed with whitish and red-brown hairs, abdomen pale ochreous grey, dorsal crest darker brown, anal tuft ochreous with blackish sternal coremata. Forewing moderately long, high triangular with apex pointed, ground colour shining dark olive-grey with intense metallic greenish brilliance; scaling conspicuously reticulate. Costal and basal areas and inner part of marginal field irrorated with pinkish- or violet-grey. Wing pattern sharply defined, ante- and postmedial crosslines oblique, straight, double, dark brown filled with pinkish, latter with a fine pinkish stripe at outer side. Basal area narrow, medial area relatively broad, less variegated, darkened below cell, darkest part of wing. Orbicular and reniform stigmata small, encircled with fine silvery-pinkish lines, filled with greenish grey, former large, rounded, latter relatively narrow, constricted at middle. Stigma large, marked by a fine silvery-pinkish line forming a wide, open V. Subterminal line rather diffuse, pinkish, less sinuous but with a stronger angle at vein m3; defined by a wide, darker inner zone. Terminal line continuous, fine, dark olive-brown, upper half marked by a fine pinkish white line, cilia dark olive-grey, finely spotted with whitish and a few blackish scales. Hindwing ochreous-whitish, inner part narrow, irrorated strongly with greyish-brown, veins darker, discal spot and transverse line absent or poorly visible, marginal area broad, with strong dark brown suffusion. Terminal line dark brown, cilia ochreous-whitish with dark brown medial stripe. Underside of forewing almost fully covered by dark brownish-grey, traces of stigma and subterminal line visible, paler. Inner area of hindwing ochreous-whitish, marginal area with strong grey-brown suffusion, discal spot absent or hardly recognisable.

**Bionomics and distribution.** Indonesia: Timor, Flores.

*Ctenoplusia (Ctenoplusia) sumbawana*, spec. nov.

Plate 1, fig. 17, text-fig. 14

**Types.** Holotype: ♂, "Indonesia, Sumbawa, Prov. Nusa Tenggara Barat, Kempo, 30 km W Dompu, 180 m, Primär/Secundär Wald, 17-18.3.1996, leg. R. Brechlin" (coll. Behounek, coll. ZSM, Munich) (Slide No. 5210 Behounek). – Paratypes: 1♂, Indonesia, Sumbawa, Prov. Nusa Tenggara Barat, Bima-Airport (Palibelo) 50 m, secondary forest, 12.3.1996, (1) leg. R. Brechlin; 2♂♂, Prov. Nusa Tenggara Barat, Kempo, 30 km W Dompu, 180 m, primary/secondary forest, 17-18.3.1996, leg. R. Brechlin (colls Behounek, HNHN, Budapest) (Slide No. RL5759, ♂).



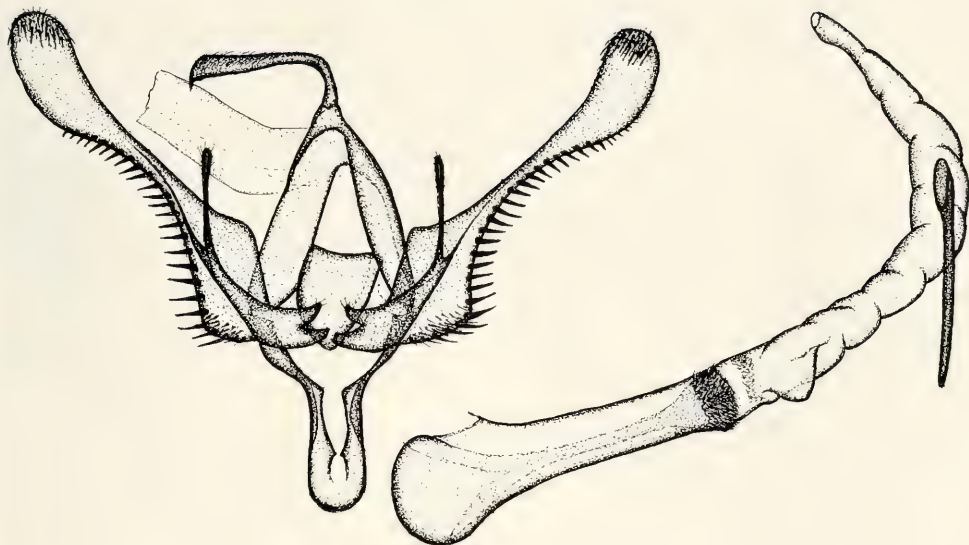


Fig. 14. *Ctenoplusia (Ctenoplusia) sumbawana*, spec. nov. Holotypus: ♂, Sumbawa.

**Diagnosis.** The new species belongs to the *Ctenoplusia furcifera* (Walker, 1857) – *C. kosemponensis* Strand, 1920 species-group, appearing as an isolated member of the group occurring only in Sumbawa while *C. furcifera* is widespread from the southern Himalayan region to New Guinea, *C. kosemponensis* is known from Taiwan and from the Indian subcontinent. The external appearance of the three species is rather similar but *C. furcifera* is more unicolorous, without stronger golden suffusion below cell which regularly present in the two other species. The general coloration of *C. sumbawana* is paler than that of *C. kosemponensis*, the golden patch below cell is less conspicuous, more diffuse while the metallic reflection of the marginal area is stronger, the antemedial line is less sinuous, more oblique.

The ♂ genitalia of the new species differ from those of the related taxa by its longer, apically dilated uncus, more elongated, medially much more constricted valva with longer cucullus having no triangular ventral lobe, longer harpe and longer cornutus of the vesica, longest in the species-group.

## Description

Wingspan 27 mm, length of forewing 13 mm. Head and thorax dark brown mixed with a few ochreous-greyish, tegulae marked with whitish-grey, metathoracic tuft large, dark brown with paler red-brownish tip. Abdomen ochreous-brownish, dorsal crest well-developed, dark, anal tuft very strong, ochreous-greyish. Forewing rather short, high triangular with apex pointed, ground colour dark greyish brown with intense golden-greenish and reddish-bronze brilliance, especially below cell and in marginal area. Wing pattern rather sharply defined, antemedial line oblique, straight below cell, postmedial line sinuous, both crosslines dark brown with silvery whitish filling, latter with dark pinkish-greyish definition on outer side. Basal area narrow, darkened, medial area relatively wide. Orbicular and reniform stigmata small, encircled with fine silvery-whitish and blackish lines, defined with blackish-brown spots, former oblique, flattened, latter narrow, strongly constricted at middle. Stigma relatively large, golden-silvery, more or less conjoined, inner part broadly U-shaped, outer spot small, elongated. Subterminal line diffuse, whitish, sinuous, with darker brownish definition, terminal line a row of small dark dots; cilia pale brownish-whitish, spotted with darker brown and blackish. Hindwing ochreous-whitish, suffused with dark brown, marginal area and veins even darker, blackish-brown; discal spot present, small, transverse line poorly visible. Terminal line brown, cilia ochreous-whitish, irregularly spotted with brown. Underside of wings shining ochreous-whitish with variably strong blackish-brown suffusion, stronger on forewing; trace of stigma poorly visible. Hindwing paler, with broad, dark marginal suffusion, discal spot present, diffuse.

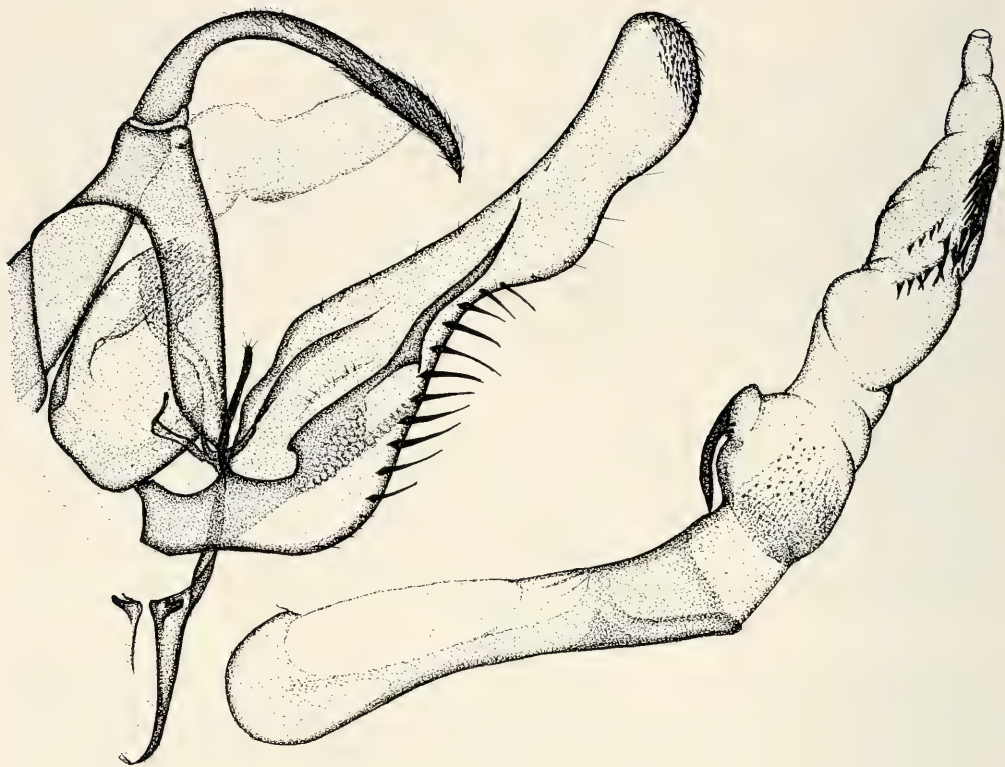


Fig. 15. *Ctenoplusia (Acanthoplusia) armata*, spec. nov. Holotypus: ♂, Mindanao.

♂ genitalia (fig. 14) Uncus long, curved at base, distally dilated, apical hook long, strong. Tegumen high, fultura inferior rather weak but large, shield-like, vinculum long, distal-two-third almost parallel, tip rounded, inner lobes small, triangular. Valva long, medially strongly constricted, cucullus rather long, with setose, rounded apex. Subbasal costal lobe strong, triangular, pointed, ventral angle variably prominent but relatively strong, macrosetae short, thick, shortened from middle to lower edge of cucullus. Sacculus short, clavus short, wedge-shaped, setose, harpe long, stick-like, apically slightly dilated, covered with sensory setae. Aedeagus cylindrical, medium-long, ventral sclerotized plate rather weak, carina covered with a large amount of tiny spiculi. Vesica rather short, tubular, curved, basal part with a small, subconical diverticulum and a scobinated collar, terminal cornutus very long, stick-like, finely pointed.

♀ unknown.

**Bionomics and distribution.** Indonesia: Sumbawa, Flores.

*Ctenoplusia (Acanthoplusia) armata*, spec. nov.

Plate 2, figs 30, 31, text-fig. 15

**Types.** Holotype: ♂, "Philippines, Mindanao, S Mt. Kitanglad, 2800 m, 15.8.-15.9.1993, leg. Siniaev" (HNHM, Budapest) (Slide No. RL4778). – Paratypes: 4♂♂, with same data as holotype (colls. Thöny and Behounek).

**Diagnosis.** *A. armata* is the allopatric sister species of *A. eugrapha* Hampson, 1913, known from Papua New Guinea. The new species differs from its twin species by its larger size, much darker, less shining forewings with much more sinuous ante- and postmedial crosslines with darker, narrower pinkish definition, paler hindwing, etc.

The ♂ genitalia show also conspicuous differences, the new species has more curved uncus, longer valva with significantly longer, narrower cucullus, essentially longer, acute harpe and different, more complex armature of the vesica.

## Description

Wingspan 29-31 mm, length of forewing 13-14 mm. Head and thorax pale chocolate-brown mixed with pinkish-whitish and dark brown hairs. Forewing elongated with apex pointed, ground colour shining, light tobacco-brown with intense golden-greenish brilliance below cell and in marginal area; wing relatively strongly variegated with dark brown and whitish. Wing pattern rather sharply defined, ante- and postmedial crosslines sinuous, oblique, dark brown, with strong, conspicuous dark pink definition on both sides. Basal area narrow, darkened, medial area relatively narrow, orbicular and reniform stigmata small, encircled with fine pinkish lines, defined with blackish-brown spots, former oblique, flattened, latter narrow, strongly constricted at middle. Stigma relatively big, silvery, conjoined, inner part broad U-shaped, outer spot small, elongated. Subterminal line diffuse, whitish, sinuous, terminal line a row of small dark triangles, base of cilia whitish, spotted with brown. Hindwing ochreous-whitish, marginal area and veins with stronger dark covering; discal spot present, diffuse, transverse line poorly visible. Terminal line brown, cilia ochreous-whitish, irregularly spotted with brown. Underside of wings shining ochreous whitish with variably strong dark brown suffusion, stronger on forewing. Traces of stigma poorly visible, shadows of medial and subterminal lines rather strong. Hindwing with two parallel, diffuse lines in outer half of wing, discal spot strong, diffuse.

♂ genitalia (fig. 15). Uncus long, slender, curved, apically hooked. Tegumen high, narrow, fultura inferior large, elliptical, vinculum medium-long, narrow, terminally finely rounded, inner lobes very small. Valva elongated, strongly constricted at middle, cucullus broadened, long, more or less foot-shaped with apex rounded, densely setose. Ventral margin with relatively few (8), rather weak macrosetae; dorsal surface with a large field of androconial scales. Sacculus very short, clavus long, gracile, more or less S-shaped, harpe very long, acute, sword-like having long, sclerotized basal bar. Aedeagus long, ventral sclerotized ribbon long, strong, carina with scobinate collar and a long, narrow dorsal bar. Vesica short – shorter than aedeagus –, narrow, tubular, basal part with a cornuti field consisting of numerous fine spinules and a long, curved cornutus, as a direct continuation of dorsal bar of carina and a rather narrow ring of fine, pointed spiculi posteriorly. Distal half tapering, covered sparsely with tiny spiculi, armed with a row of medium-long, wide-based cornuti.

♀ unknown.

**Bionomics and distribution.** The species is known from the type locality only.

**Etymology.** The specific name is given because of the strong, sword-like harpe and the cornuti of the vesica.

## *Ctenoplusia (Acanthoplusia) latistigma floresiana*, subspec. nov.

Plate 2, figs 33, 34, text-fig. 16

**Types.** Holotype: ♂, “Indonesia, Timur, Flores, Golo Luseng, 1820 m, leg. Paukstadt” (coll. Behounek, coll. ZSM, Munich) (Slide No. 5079, Behounek). – Paratypes: 3♂♂, Indonesia, Flores, Prov. Nusa Tenggara Timur Gunung, 18 km E Labuhanbajo, 200 m primary forest, 9-12./22.4.1996, leg. R. Brechlin; 1♂, Prov. Nusa Tenggara Timur Gunung, Ranggawatu, Telecom-station, 33 km E Labuhanbajo, 900 m, primary forest, 13.4.1996, leg. R. Brechlin; 2♂♂, Prov. Nusa Tenggara Timur Gunung, (=Mt.) Ranaka (N) 9 km E Rutang, 1140 m, secondary-primary forest, 14-15.4.1996, leg. R. Brechlin; 6♂♂, Prov. Nusa Tenggara Timur Gunung, (=Mt.) Ranaka (E) 3 km S Mano, (18 km SE Ruteng) 1270 m, primary forest, 17-21.4.1996, leg. R. Brechlin; 1♂, Timor, Barat, Prov. Nusa Tenggara Timur, Gunung (Mt.) Mutis (S) 1460 m, Fatumnasi, 21-23.3.1996, leg. R. Brechlin; 1♂, Toimor, Prov. Nusa Tenggara Timur, Gunung (Mt.) Mutis (S) 5 km N Fatumnasi, 1730 m, primary forest, 26.3.1996, leg. R. Brechlin (colls. Behounek, HHNM, Budapest, coll. Krusek) (Slide Nos. 5208, 5213, Behounek, RL6183, Ronkay, ♂♂).

**Diagnosis.** The populations of the taxa of the *C. (A.) latistigma latistigma* Prout, 1922 lineage, known from Ceram (type locality), Flores, Timor and from Sulawesi are rather different externally, while the ♂ genitalia of the specimens show only slight differences especially in the number of cornuti of the vesica and the shape and size of the cucullus but with certain, partly overlapping individual variation. Therefore they considered as insular subspecies of the same, rather widely distributed species. *C. (A.) latistigma floresiana* differs from the nominotypical subspecies by its more unicolorous forewings with



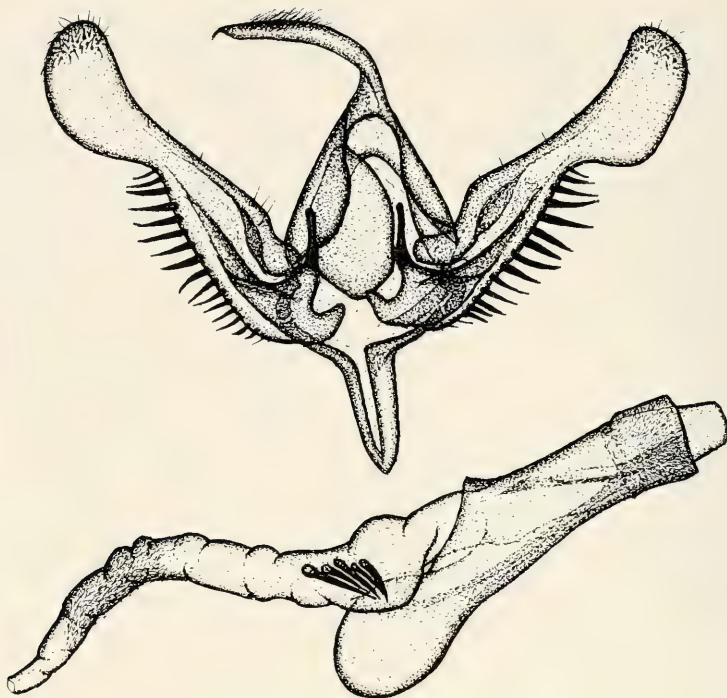


Fig. 16. *Ctenoplusia (Acanthoplusia) latistigma floresiana*, subsp. nov. Holotypus: ♂, Flores.

less darkened medial area below cell, less intense metallic golden brilliance but with more extensive pale violet-greyish irroration. The ♂ genitalia of the two subspecies are very similar, but the harpe of the new subspecies is more reduced, a minute spine, and the cucullus is somewhat more elongated. The holotype of *C. (A.) latistigma latistigma* has six strong medial cornuti in the vesica while three of the four dissected specimens of *C. (A.) latistigma floresiana* have five cornuti and only the fourth specimen is armed with six cornuti.

### Description

Wingspan 28-30 mm, length of forewing 13-14 mm. Head and thorax dark brown mixed with whitish, orange-yellowish and red-brown hairs. Abdomen paler, more greyish, dorsal crest consisting of large, apically blackish tufts, anal tuft ochreous. Forewing moderately long, high triangular with apex pointed. Ground colour dark brown with intense but rather fade golden-greenish brilliance, costal and basal areas and outer part of marginal field with strong, pale violet-grey and pinkish irroration. Wing pattern sharply defined, antemedial line slightly, postmedial rather strongly sinuous, both crosslines double, dark brown, with whitish-pinkish definition on both sides, postmedial strongly angled inwards below stigma. Basal area narrow, medial area relatively broad, less variegated, darkened below cell, darkest part of wing. Orbicular and reniform stigmata small, encircled with fine whitish-pinkish lines and a few dark (blackish-brown) spots, former oblique, flattened, latter narrow, strongly constricted at middle. Stigma relatively big, silvery, conjoined or separated into two distinct spots, inner part broadly U- or V-shaped, outer spot small, elongated. Subterminal line whitish, almost straight, defined by a darker inner stripe. Outer half of marginal field with a fine, interrupted pinkish line and a stronger dark spot at vein m3. Terminal line a row of partly fused, small blackish triangles, cilia greyish, spotted with brown. Hindwing ochreous-whitish, inner part narrow, with weak brownish irroration, marginal area broad, suffused strongly with dark brown. Veins also darker; discal spot diffuse, lunulate, transverse line absent or poorly visible. Terminal line dark brown, cilia white(ish), irregularly spotted with brown and blackish. Underside of wings shining ochreous whitish with variably strong greyish brown suffusion, regularly stronger on forewing. Trace of stigma poorly

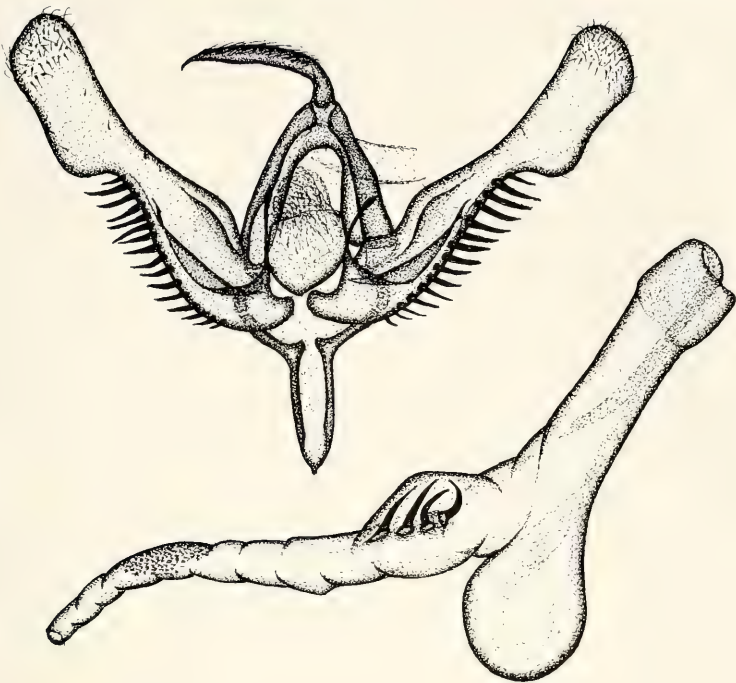


Fig. 17. *Ctenoplusia (Acanthoplusia) latistigma sulawesiana*, subsp. nov. Holotypus: ♂, Flores.

visible, shadows of medial and subterminal lines rather strong. Hindwing with two parallel, diffuse lines in outer half of wing and with variably strong marginal suffusion, discal spot diffuse but regularly strong.

♂ genitalia (fig. 16). Uncus rather long, slender, finely curved, apically hooked. Tegumen high, narrow, fultura inferior large, more or less elliptical, vinculum medium-long, narrow, pointed terminal. Valva elongated, strongly constricted below cucullus. Cucullus elongated, more or less foot-shaped with apex rounded, apical part densely setose. Ventral margin with 14-18 rather strong macrosetae; dorsal surface with a large field of androconial scales. Sacculus short, clavus long, strong, straight, harpe reduced to a minute spine at top of its flattened, cuneate basal bar. Aedeagus long, ventral sclerotized ribbon long, strong, carina with scobinate collar and a long, narrow dorsal bar. Vesica narrow, tubular, hyaline, recurved ventro-laterally at middle. Medial third slightly dilated, armed with five strong, medially curved, pointed cornuti. Distal third tapering, covered with short, small spiculi.

♀ unknown.

**Distribution.** Indonesia: Timor, Flores.

**Etymology.** The name of the taxon refers to the home land of the subspecies.

*Ctenoplusia (Acanthoplusia) latistigma sulawesiana*, subsp. nov.

Plate 2, fig 32, text-fig. 17

**Types.** Holotype: ♂, "Indonesia, Sulawesi-süd, Puncak, Palopo, 900-1300 m, 2°55' S, 120°05' E, Jan.1997, leg. einh. Sammler", ex. coll.Brechlin (coll. Behounek, coll. ZSM, Munich) (Slide No. 5297, Behounek). – Paratypes: 2♂♂, with same data as holotype (colls. Behounek, HNHM, Budapest) (Slide Nos. RL6184, RL6185, Ronkay, ♂♂).

**Diagnosis.** The population occurring in Sulawesi differs from the other two subspecies by its paler ground colour, broad, more shining, diluted costal and marginal areas with more intense pinkish

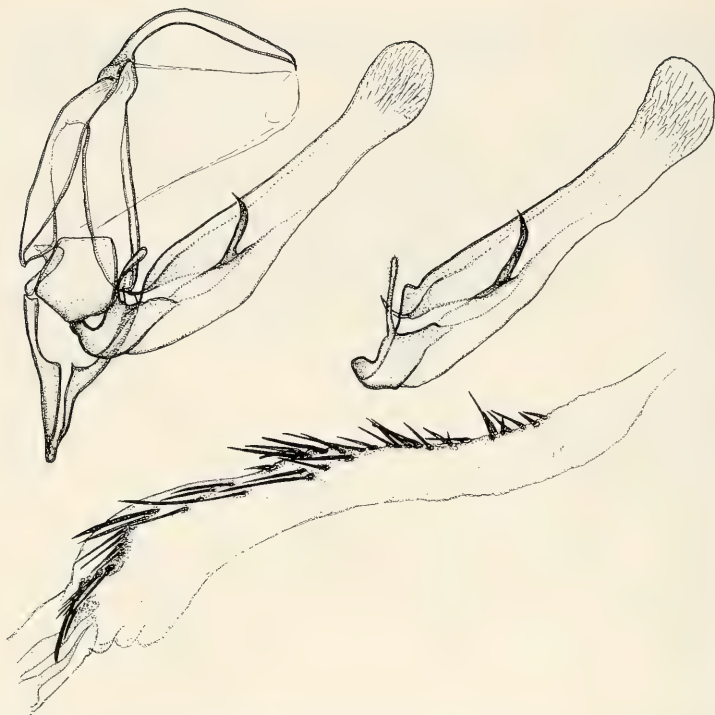


Fig. 18. *Ctenoplusia (Acanthoplusia) dufayi*, spec. nov. Paratype: ♂, N-Luzon.

irration, less angled, more defined postmedial line and stronger, more sinuous subterminal line. The ♂ genitalia (fig. 17) of *C. (A.) latistigma sulawesiana* differ from those of the other two subspecies by the shape and length of the cucullus – which is longest, narrowest in *C. (A.) l. sulawesiana* – and the length of the harpe but these features are rather variable and may partly overlapping in the three subspecies of *C. (A.) l. latistigma*. The number of the large cornuti of the vesica is also variable, as *C. (A.) l. sulawesiana* has four or five, *C. (A.) l. floresiana* five or six while the holotype of *l. latistigma* (slide No. 4432 BMHN) has six strong medial cornuti.

**Distribution.** Indonesia: Sulawesi.

**Etymology.** The name of the taxon refers to the home land of the subspecies.

***Ctenoplusia (Acanthoplusia) dufayi*, spec. nov.**

Plate 2, fig. 35, text-figs 18, 19

**Types.** Holotype: ♂, "Philippines, N-Luzon, Ifugao, Banaue, vic 20 km nördl. Laguna, 1200 m, 16°54' nördl. Breite / 121°06' östl. Länge, [Sekundärwald, Reisfelder], 22.9.-16.10.1988, leg. K. Cerný & A. Schintlmeister" (coll. Behounek, coll. ZSM, Munich) (Slide No. 5081, Behounek). – Paratypes: 1♀, Philippines, N Luzon: 1♀, Mts. Prov. Chatol, 15 km SE Bontoc, 17°02' N, 121°02' E, [Nebelurwald], 1600 m, 24.9., 14.10.1988, leg. K. Cerný & A. Schintlmeister (coll. Behounek); 2♂♂, with same data (HNHM, Budapest); 2♂♂, Prov. Ifugao, Kinakins, 5 km E Banaue, 1200 m, 21.07.1993, leg. M. Schaarschmidt (colls. Behounek and Graul); 2♂♂, Prov. Ifugao, Mt. Polis, 20 km N Banaue, 1600 m, 26.07.1993, leg. M. Graul (colls. Behounek and Graul); 5♂♂, 1♀, Prov. Bontoc, Mt. Data Hotel, 10 km E Bontoc 1900 m, 02.08.1993, leg. M. Graul (colls. Behounek, Graul and HNHM Budapest) (Slide Nos. RL3132, RL3152, Ronkay, ♂♂, 5116, Behounek, ♀).

**Diagnosis.** The closest relative of the new species is *A. herbuloti* Dufay, 1982, differing from it by its paler pinkish brown, less variegated forewings, especially in medial area and the inner half of the



marginal field, less sinuous ante- and postmedial cross-lines with wide whitish-pinkish definition, more oblique stigma, etc.

The ♂ genitalia of the two species are rather strongly different, *A. dufayi* has longer, more curved uncus, somewhat broader valva with dilated, rounded cucullus and less sinuous ventral margin, more curved, medially not ribbed harpe and the different armature of the vesica. *A. dufayi* has more cornuti with more equal size, especially at base where the first two (three) cornuti are considerably larger in *A. herbuloti*, the terminal part of the vesica is covered with much larger number of minute spiculi.

The ♀ genitalia of *A. dufayi*, comparing with those of *A. herbuloti*, have stronger, longer, more sclerotized but less ribbed ductus bursae, shorter, less wrinkled, not recurved cervix bursae and shorter, more ovoid corpus bursae.

**Description**

Wingspan 29-31 mm, length of forewing 13-15 mm. Head and thorax pale tobacco-brown mixed with whitish, pale grey and dark brown hairs, abdomen pale ochreous grey, dorsal crest darker brown, anal tuft brownish. Forewing moderately long, high triangular with apex pointed. Ground colour shining, light tobacco-brown with intense but fade golden brilliance, costal and basal areas and outer part of marginal field with strong whitish-pinkish irroration. Wing pattern rather sharply defined, ante- and postmedial crosslines slightly sinuous, dark brown, with strong, conspicuous whitish-pinkish definition on both sides. Basal area narrow, medial area relatively broad, less variegated below cell, orbicular and reniform stigmata small, encircled with fine whitish lines, marked with some dark (blackish-brown) spots, former oblique, flattened, latter narrow, strongly constricted at middle. Stigma relatively big, silvery, most often divided into two distinct spots, inner part V-shaped, outer spot small, elongated. Subterminal line whitish, sinuous, outer half of marginal field with a fine pinkish white line and stronger whitish irroration. Terminal line a row of partly fused, small dark triangles, cilia whitish, spotted with brown. Hindwing ochreous-whitish, inner part with weaker, marginal area with stronger dark brown suffusion, veins also darker; discal spot and transverse line absent or poorly visible. Terminal line dark brown, cilia ochreous-whitish, irregularly spotted with brown. Underside of wings shining ochreous whitish with variably strong dark brown suffusion, regularly stronger on forewing. Traces of stigma poorly visible, shadows of medial and subterminal lines rather strong. Hindwing with two parallel, diffuse lines in outer half of wing, discal spot diffuse but regularly present.

♂ genitalia (fig. 18). Uncus long, slender, curved, apically hooked, tegumen high, relatively narrow, fultura inferior large, pentagonal, vinculum medium-long, strong, V-shaped. Valva elongated, distally tapering towards neck of cucullus, Cucullus broadened, with apex rounded, densely setose. Sacculus very short, clavus long, stick-like, apically finely dilated, covered with sensory setae. Harpe strong, long, distally curved, apex acute. Aedeagus long, carina with long lateral bars, vesica broadly tubular, distally tapering, armed with a long row of fine, acute spines of variable size, most of them medium-sized or rather long.

♀ genitalia (fig. 19). Ovipositor moderately long, weak, posterior papillae anales small, rounded, gonapophyses rather long, fine. Ostium bursae membranous, calyculate, ductus bursae sclerotized, posterior part narrow, tubular, anterior two-third broad, flattened, finely ribbed. Cervix bursae elon-



**Fig. 19.** *Ctenoplusia* (*Acanthoplusia*) *dufayi*, spec. nov. Paratypus: ♀, N-Luzon.



Fig. 20. *Ctenoplusia (Acanthoplusia) javana*, spec. nov. Holotypus: ♂, Java.

gated, weakly rugulose, apically pointed, corpus bursae elliptical-ovoid.

**Bionomics and distribution.** Philippines: Luzon.

**Etymology.** The new species is dedicated to Dr. Claude Dufay.

***Ctenoplusia (Acanthoplusia) javana*, spec. nov.**

Plate 1, fig. 13, text-fig. 20

**Holotype:** ♂, "Tjinjircean, Gouv. Klna-Ondern, 1700 m, (Malabar Geb. W. Java) Dr H.W. v.d. Weele coll, Dec 1909" (coll. RNH Leiden) (Slide No. RL4464, Ronkay).

**Diagnosis.** *A. javana* is the twin species of *A. kobesi* Behounek et Thöny, 1995, both species are known by their unique types. The new species has shorter, more unicolorous forewings with more straight, less sinuous ante- and postmedial crosslines, with less intense whitish-pinkish definition.

The ♂ genitalia of the two species are rather close, but the valvae of *A. javana* are longer, narrower with more elongated cucullus, the harpe is finer, shorter, the vinculum is longer and the tube of vesica is considerably longer, the two cornuti are stronger, longer, more straight and acute, situated far more terminally than in case of *A. kobesi*.

**Description**

Wingspan 25 mm, length of forewing 12 mm. Pubescence of thorax dark grey-brown mixed with whitish-pinkish, metathoracic tuft large. Forewing rather short, high triangular with apex pointed. Ground colour pale greyish brown with intense metallic shining and whitish and blackish irroration. Basal area narrow, suffused with whitish, ante- and postmedial lines sinuous, darker brown with whitish-pinkish definition on both sides. Medial area relatively broad, variegated, orbicular and reniform stigmata small, flattened, encircled with fine whitish lines, marked with some dark (blackish-brown) spots. Stigma small, silvery, divided into two distinct parts, inner part a fine U, outer spot small, rounded. Subterminal line whitish, strongly sinuous, marked with a few dark spots, inner half of marginal area glossy golden-brownish, outer half paler with stronger whitish irroration. Terminal line

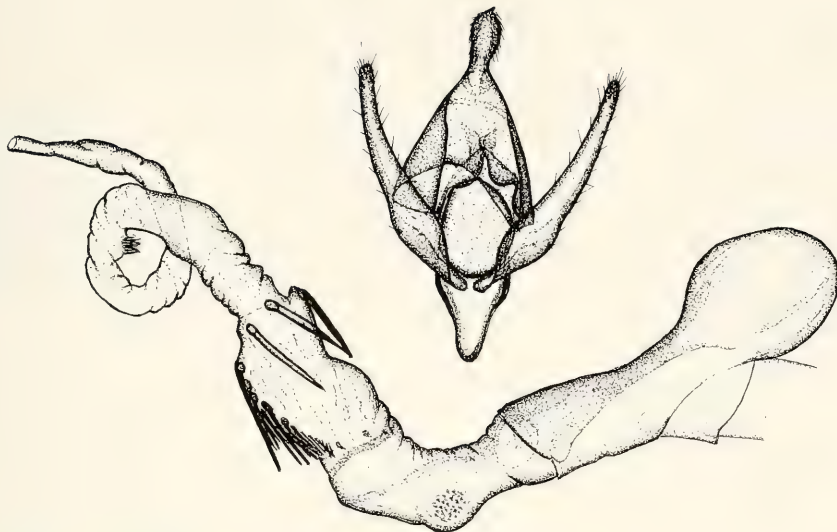


Fig. 21. *Chrysodeixis (Chrysodeixis) papuasiae* Dufay, 1970, ♂, New Guinea.

partly interrupted, dark brown, cilia white, spotted with small, dark brown patches. Hindwing whitish, covered with dark brown, marginal suffusion broad, veins also darker; discal spot and transverse line poorly visible. Terminal line dark brown, cilia white(ish), irregularly spotted with brown. Underside of wings ochreous whitish, forewing with stronger, hindwing with weaker grey-brownish suffusion. Traces of stigma rather clearly visible, shadow of subterminal line also rather strong. Hindwing with two parallel, diffuse lines in marginal area, discal spot diffuse.

♂ genitalia (fig. 20). Uncus long, strongly curved at middle, apical hook short, weak. Tegumen medium-high, relatively narrow, fultura inferior calyculate, vinculum long, narrow, terminally finely rounded. Valva long, narrow, medially weakly constricted, cucullus slightly broadened, more or less foot-shaped with apex rounded, setose. Sacculus very short, clavus long, straight, stick-like, harpe reduced to a short, acute spine having long, sclerotized basal bar. Aedeagus long, ventral sclerotized ribbon long, strong, carina with long ventral bar and fine scobination. Vesica long, tubular, distally tapering, recurved. Subbasal part covered with minute spiculi, terminal third armed with two long, strong, wide-based cornuti and two small fields of fine denticles.

**Bionomics and distribution.** Distribution: Indonesia: Java. The unique ♂ specimen was collected in the western part of Java at a relatively high altitude in the "winter" period.

**Etymology.** The specific name refers to the home island of the taxon.

## 2. New records of little known Plusiinae species

### *Chrysodeixis (Chrysodeixis) papuasiae* Dufay, 1970

Plate 2, figs 22, 23, text-figs 21, 22

Bull. Soc. linn. Lyon 39: 102 (Holotypus: ♂, New Guinea, coll. Dufay)  
= *decorata* WARREN, in litt.

**Material examined:** Papua New Guinea: 1♂, Biagi, Mambare, 5000 ft., January 1906, leg. A.S. Meek (coll. BMNH, London). Indonesia. Irian Jaya: 1♀, Mt. Goliath, 5-7000 ft., about 139° long., February 1911, leg. A. S. Meek (coll. BMNH London) (Slide Nos. RL4462, ♂, RL4463, ♀).

**Distribution.** New Guinea.





Fig. 22. *Chrysodeixis (Chrysodeixis) papuasiae* Dufay, 1970, ♀, New Guinea.

*Chrysodeixis (Chrysodeixis) luzonensis* (Wileman & West, 1929)

Plate 2, fig. 24, text-fig. 23

Novit. Zool. 35: 23 (*Phytometra*) (Holotypus: ♂, Philippines, Luzon, Benguet, coll. BMNH, London)

**Material examined:** Philippines. N Luzon: 1♂, Luzon, Ifugao, Banaue, 20 km N Laguna, 1200 m, Sept.-Oct.1988, leg. Cerny & Schintlmeister, (Slide No. 5087 Behounek); 1♂, Prov.Bontoc, Chatol, 15 km E Chatol, 1800 m, 24. July 1993, leg. Graul; 1♂, Prov. Bontoc, Chatol, 10 km E Chatol, 1900 m, 24. July 1993, leg. Sinajev (colls Behounek, HNHM, Budapest) (Slide No. RL4739, Ronkay, ♂).

**Distribution.** Philippines, Luzon.

*Chrysodeixis (Chrysodeixis) permissa* (Walker, 1858)

Plate 1, fig. 9, text-fig. 24

List. Spec. Lep. Ins. B. M. 15: 1786 (*Plusia*) (Type: India, coll. BMNH, London)

**Material examined:** Nepal: 2♂♂, Ganesh Himal, 2520 m, near Godlang, 85°17'E, 28°10'N, 13.X.1995, leg. Peregovits and Ronkay (coll. HNHM, Budapest; G. Ronkay). India: 2♀♀, Nilgiri Hills, Kunda Hills, Silent Valley, ca. 1000 m, 76°27'E, 11°05'N, 10-14.12.1982, leg. E. and A. Bauer and Schliermann (coll. HNHM Budapest). Sri Lanka: 1♀, without other details (Slide No. RL651, Ronkay, ♀).

**Distribution.** India, Nepal, Vietnam, Sri Lanka.

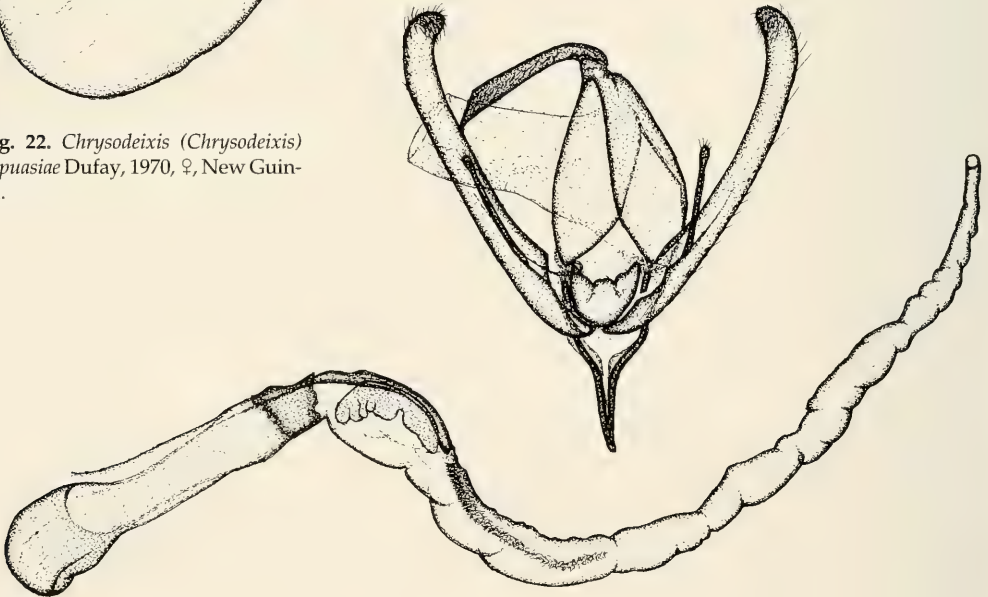


Fig. 23. *Chrysodeixis (Chrysodeixis) luzonensis* (Wileman & West, 1929), ♂, N-Luzon.

*Chrysodeixis (Chrysodeixis) diehli*

Dufay, 1982

Plate 2, fig. 20

Bull. Soc. linn. Lyon 51: 71, fig. 1, 2, (Holotypus: ♂, Lawalo, Nias, Sumatra, coll. MNHN, Paris)

**Material examined:** Indonesia. Nias: 3♂♂, vic Sawo, March 1995, leg. Diehl (coll. Behounek).

**Distribution.** Borneo, Indonesia: Sumatra, Nias, Bali, Java.

*Chrysodeixis (Chrysodeixis) plesiostes*

Dufay, 1982

Plate 2, fig. 21

Bull. Soc. linn. Lyon 51: 72, fig. 3, 4 (Holotypus: ♂, Sumatra, coll. MNHN, Paris)

**Material examined:** Indonesia. Flores, 18♂♂, Prov. Nusa Tenggara Timur Gunung, 18 km E Labuhanbajo, 200 m, primary forest, 9.12.-22.4.1996, leg. R. Brechlin (coll. Behounek) (Slide Nos.: 5218, 5219, 5238, 5239, Behounek, ♂♂).

**Distribution.** Indonesia: Sumatra, Flores, Sulawesi. New for the island Flores.

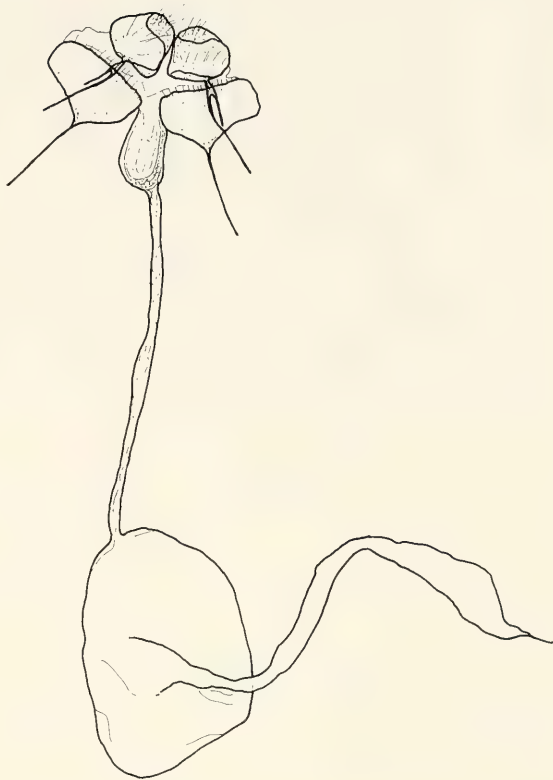


Fig. 24. *Chrysodeixis (Chrysodeixis) permissa* (Walker, 1858), ♀.

*Chrysodeixis (Chrysodeixis) dinawa* (Bethune-Baker, 1906)

Plate 1, figs 10, 11

Novit. Zool. 13: 270 (*Plusia*) (Holotypus: New Guinea, coll. BMNH, London)

**Material examined:** Indonesia. Irian Jaya: 2♂♂, Neu Guinea, Nabire, 12 km E Samabusa Lagari, 50 m, 6.-8.12.1993, leg. Brechlin & Cerny; 3♂♂, 6 km E Sambusa Lagari, 50 m, 9-13.12.1993, leg. Brechlin & Cerny.

Moluccas, Ceram sept. (Seram): 3♂♂, Wahal-Air Besar, Manusela, 20 m, 5.1997, leg. H. & F. Taschner (colls Behounek, HNHM, Budapest) (Slide No. 5280, Behounek, ♂).

**Distribution.** Indonesia, Moluccas, Ceram, New Guinea, New Ireland, Bismarck-Arch. New for the Moluccas and for Ceram.

*Chrysodeixis (Chrysodeixis) kebeana* (Bethune-Baker, 1906)

Plate 1, fig. 12

Novit. Zool. 13: 271 (*Plusia*) (Holotypus: New Guinea, coll. BMNH, London)

**Material examined:** Indonesia. Irian Jaya: 1♀, New Guinea, Nabire, 12 km E Samabusa Lagari, 50 m, 6-8. Dec. 1993, leg. Brechlin & Cerny; 1♂, Nabire, 6 km E Sambusa Lagari, 50 m, 9-13. Dec. 1993, leg. Brechlin & Cerny; 1♂, 30 km S Manokwari, Arfak Mts. Ngat Biép, river Ngat valley, 850 m, 18-19. Dec. 1993, leg. Brechlin & Cerny (coll. Behounek) (Slide No. 5240, Behounek, ♂).

**Distribution.** New Guinea, Fergusson-Islands, New Britain.

*Chrysodeixis (Chrysodeixis) kebeae* (Bethune-Baker, 1906)

Plate 2, fig. 19

Novit. Zool. 13: 270 (*Plusia*) (Holotypus: New Guinea, coll. BMNH, London)

**Material examined:** Indonesia. Irian Jaya: 1♂, New Guinea, Nabire, 12 km O Samabusa Lagari, 50 m, 6-8. Dec. 1993, leg. Brechlin & Cerny (coll. Behounek).

**Distribution.** New Guinea.

*Chrysodeixis (Chrysodeixis) politus* Dufay, 1970

Bull. Soc. linn. Lyon 39: 103, (Holotypus: ♀, Sumatra, coll. ZSM, Munich)

**Material examined:** Indonesia. C Bali: 1♂, Byan Lake, 1300 m, 8.-10. Feb. 1997, leg. Cerny (coll. Behounek).

**Distribution.** Thailand, Indonesia, Sumatra, Java, Bali. New for Bali.

*Chrysodeixis (Chrysodeixis) minutus* Dufay, 1970

Plate 2, fig. 18, text-fig. 25

Bull. Soc. linn. Lyon 39: 101 (Holotypus: ♂, India, coll. MNHN, Paris)

**Material examined:** Taiwan. Prov. Taoyuan: 4♂♂, 1♀, 14 km E Fushing, 800 m, 19-25.5.1995, leg. Hreblay & Stéger.

Philippines. Mindanao: 1♀, Bukidnon, Dalongdong, 45 km NW Maramag, Mt. Binasilang, (Bergurwald), 1200 m, 7°55'N 124°40'E, 2.10.1988, leg. Cerny & Schintlmeister (colls. Behounek, HNHM, Budapest) (Slide Nos. RL4292, RL5013, Ronkay, ♂♂).

**Distribution.** N-India, Himalayas, Sikkim, Nepal, Vietnam, Japan, Taiwan, Philippines.

*Thysanoplusia reticulata* (Moore, 1882)

Plate 2, fig. 25

Lepid. Atkinson: 148 (*Plusia*) (Syntypes: India, Sikkim, BMNH, London and MNHU, Berlin)

**Material examined:** Vietnam, 2♂♂, Tam Dao, Vinh Phu, 21.1.1986, leg. Mahunka & Oláh (coll. Behounek).

Taiwan. Chai Hsien: 2♂♂, Alishan, 20.6.1970, leg. Kishida; Nantou Hsien: 1♂, Lushan Spa, 1200 m, 23-24.3.1981, leg. Yoshimoto (coll. Behounek).

Indonesia. Sumatra: 6♂♂, ♀♀, Aek Tarum, Gunung Malayu, Febr.-March, leg. Diehl; 1♂, Dairi-East, 1500 m, 18.4.1981, leg. Diehl; 1♂, Dairi-West, 1200 m, 26.4.1981, leg. Diehl; 4♂♂, ♀♀, Huta Padang, 310 m, 99°11'E 2°48'N, Sept.-Febr., leg. Diehl; 3♂♂, ♀♀, Simalungen, Prapat, Holzweg 2, 1050 m, 28km W Siantar, 2°46'N, 98°59'E, Febr.-May, leg. Diehl; 1♂, 1♀, Simalungen, Prapat, Holzweg 2-4, 1150 m, 2°46'N, 98°59'E, 21.9.1996, leg. Diehl; 6♂♂, ♀♀, Simalungen, Prapat, Holzweg 3, 1050-1150 m, 2°46'N, 98°59'E, April-Nov., leg. Diehl; 2♀♀, Sipirok, April-May, leg. Diehl; 1♂, Simalungen, Sitahoan, 1450 m, 2°40'N, 98°55'E, (E.Prapat), 27.9.1981, leg. Diehl; 4♂♂, ♀♀, Straße Sindar Raya, 400 m, 11 km S Sindar Raya, March-June, leg. Diehl; 1♀, Tingi Raya, 15.8.1995, leg. Diehl; 1♂, Sungei Kongus 3, 23.1.1997, leg. Diehl.

Sulawesi: 1♂, Mt. Padamaran, 900-1200 m, Tana Toraja, 4.5.1986; 1♂, Puncak, Palopo, 900-1300 m, 2°55' S, 120°05' E, 25.Jan.1997, native collector leg. (ex coll. Brechlin, coll. Behounek) (Slide Nos. 5086, 5221, Behounek, ♂♂, 5220, Behounek, ♀).

**Note.** First record for Sumatra and Sulawesi, not reported by Behounek & Thöny (1995). The total number of the Plusiinae species known from Sumatra is now 29.

**Distribution.** China, India, Himalayas, Sikkim, Nepal, Thailand, Vietnam, Taiwan, Malaysia, Philippines, Indonesia: Sumatra, Sulawesi.





Fig. 25. *Chrysodeixis (Chrysodeixis) minutus* Dufay, 1970, ♂, Vietnam.

***Dactyloplusia mutans* (Walker, 1865)**

List. Spec. Lep. Ins. B. M. 33: 839 (*Plusia*) (Holotypus: Sri Lanka, BMNH, London)

**Material examined:** Laos. 1♂, Phu Soai Dao, 1250 m, June, 1996, leg. Steinke & Lehmann.

Indonesia. Flores: 2♂♂, Prov. Nusa Tenggara Timur Gunung (=Mt.) Ranaka (E) 3 km S Mano, (18 km SE Ruteng) 1270 m, primary forest, 17-21.4.1996, leg. R. Brechlin; 1♂ Ranggawatu, Telecom-station, 33 km E Labuhanbajo, 900 m, primary forest, 13.4.1996, leg. R. Brechlin.

Timor: 1♂, (Barat), Prov. Nusa Tenggara Timur, Gunung (Mt.) Mutis (S) 1460 m, Fatumnasi, 21-23.3.1996, leg. R. Brechlin (coll. Behounek).

**Note.** First record for Laos, Timor and Flores.

**Distribution.** China, India, Himalayas, Thailand, Vietnam, Laos, Taiwan, Sri Lanka, Indonesia: Sumatra, Java, Bali, Sulawesi, Timor, Flores.

***Ctenoplusia (Ctenoplusia) limbirena* (Guenée, 1852)**

Hist. Nat. Ins. (Lép.) Noct. 2:350 (*Plusia*) (Lectotypus: Madagascar, MNHN, Paris)

**Material examined:** Indonesia. Timor (Barat), 3♂♂, Prov. Nusa Tenggara Timur, Gunung (Mt.) Mutis (S) 1460 m, Fatumnasi, 21.-23.3.1996, leg. R. Brechlin; 12♂♂, ♀♀, 5 km N Fatumnasi, 1730 m, primary forest, 26.3.1996, leg. R. Brechlin.

Sulawesi, 2♂♂, Rantepao, 1250 m, 6.4.-4.5.1996, leg. Smrcek (coll. Behounek).

Bali, 2♂♂, 5 km N. Batur, 1600 m, 11.1.1999, leg. Cherny (coll. Behounek)

**Note.** First record for Timor, Sulawesi and Bali.

**Distribution.** England?, Denmark?, S-Spain, Portugal, Madeira, Morocco, Canary Isles (Tenerife, Gran Canaria, La Palma, Hierro, Gomera), Cape Verde Isl., Azores, Saudi Arabia, India, Sri Lanka, Indochina, Indonesia: Sumatra, Timor, Flores, Sulawesi; widespread in continental Africa, Madagascar, Réunion, Mauritius, St.Helena.

*Ctenoplusia (Acanthoplusia) herbuloti* Dufay, 1982

Plate 1, fig. 14

Bull. Soc. linn. Lyon, 51(3): 73, fig. 5, 6, (Holotypus: ♂, Philippines, N.Luzon, Monte Santo-Tomas, Baguio, coll. Dufay)

**Material examined:** Philippines. N. Luzon: 1♂, Ifugao, Banaue, 20 km N Laguna, 1200 m, Sept.-Oct. 1988, leg. Cerny & Schintlmeister; 7♂♂, ♀♀, Mts. Prov. Chatol, 16 km SE Bontoc, 1600 m, Sept.-Oct. 1988, leg. Cerny & Schintlmeister (coll.Behounek) (Slide Nos. 5100, 5114, Behounek, ♂♂, 5115, Behounek, ♀).

**Distribution.** Philippines, Luzon.

*Plusiopalpa adrasta* (Felder & Rogenhofer, 1874)

Reise öst. Freg. Novara, 2(2): Plate 110: 35 (*Plusia*) (Type: Indonesia, Sulawesi, coll. BMNH, London)

**Material examined:** Philippines. N Luzon: 4♂♂, ♀♀, Ifugao, Banaue, 20 km N Laguna, 1200 m, Sept.-Oct.1988, leg. Cerny & Schintlmeister, 1♂, Oct. 1988 – Jan. 1989, leg. Vermolen; 1♂, 1♀, Nueva Vizcaya, Dalton Pass, Santa Fe, 800 m, (secondary bush), 15°07' N 120°36' E, 21.Sept.-17.Oct. 1988, leg. Cerny & Schintlmeister; 2♂♂, Mts.Prov. Chatol, 16 km SE Bontoc, 1600 m, Sept.-Oct. 1988, leg. Cerny & Schintlmeister, 1♂, Quezon, Forest Nat.Park, 250 m, (Flachlandurwald), 14°01' N 120°50' E, 11.Oct. 1988, leg. Cerny & Schintlmeister.

Indonesia. N Bali: 1♂, 1♀, Gilgit, 740 m, (cultivated area), 5. Feb. 1997, leg. Cerny.

Flores: 1♂, Prov. Nusa Tenggara Timur Gunung, 18 km E Labuhanbajo, 200 m, primary forest, 9.12.-22.4.1996, leg. R. Brechlin.

Sumbawa: 1♂, 1♀, (Prov. Nusa Tenggara Barat) Gunung (=Mt.) Tambora (W) 10 km E Tambora, 1020 m, primary forest, 14-15.3.1996, leg. R. Brechlin (coll. Behounek) (Slide No. 5148, Behounek, ♂).

**Note.** First record for Philippines, Bali, Sumbawa and Flores.

**Distribution.** Japan, N-India, Himalayas, Nepal, Taiwan, Malaysia, Philippines, Borneo, Indonesia: Sumatra, Java, Bali, Timor, Flores, Sumbawa, Sulawesi; New Guinea, Bismarck-Arch., New Ireland.

*Argyrogramma signata* (Fabricius, 1775)

Syst. Ent. 608, Nr. 62 (*Noctua*) (Type: India)

**Material examined:** Philippines. N Luzon: 2♂♂, Ifugao, Banaue, 1000 m, 10.4.1988, leg. Settele, 1♂, 5 km E Banaue, 1200 m, 10.4.1988, leg. Graul; 1♂, 20 km N Laguna, 1200 m, Oct. 1988-Jan. 1989, leg. Vermolen; 2♂♂, Sept.-Oct. 1988, leg. Cerny & Schintlmeister.

Indonesia. Nias: 1♀, vic. Sawo, March 1995, leg. Diehl.

Sumbawa: 1♂, (Prov. Nusa Tenggara Barat) Bima-Airport (Palibelo) 50 m, Sec. Wald, 12.3.1996, leg. R. Brechlin.

Flores: 1♀, Prov. Nusa Tenggara Timur Gunung (=Mt.) Ranaka (E) 3 km S Mano, (18 km SE Ruteng) 1270 m, primary forest, 17.-21.4.1996, leg. R. Brechlin.

Timor: 1♂, Barat, Prov. Nusa Tenggara Timur, Gunung (=Mt.) Mutis (S), 5 km N Fatumnasi, 1730 m, primary forest, 26.3.1996, leg. R. Brechlin (coll. Behounek) (Slide No. 4288, Behounek, ♂).

**Note.** First records from the Philippines: Nias, Sumbawa, and Flores.

**Distribution.** Canary Isles, S-China, Hainan, India, Himalayas, Nepal, Sri Lanka, Indochina, Taiwan, Indonesia: Borneo, Sumatra, Nias, Java, Timor, Flores, Sumbawa; Tonga-Is., Cook-Is., Bismarck-Arch., New Ireland, New Caledonia, Australia, widely distributed in Africa south of the Sahara; Madagascar, Comores, Mauritius, Seychelles.

### *Lobopplusia vanderweelei* Roepke, 1941

Zool. Meded. Leiden, 23: 27, Plate 2: 8 (Holotypus: ♂, Indonesia, Java, coll. RNH, Leiden)

**Material examined:** Thailand. 1♂, Nau Prov. Pua Doi Phu Ka, km 35, 1680 m, 18.2.1993, leg. Speidel (coll. Behounek).

**Distribution.** India, Nepal, Thailand, Vietnam, Burma, Indonesia, Sumatra, Java.

### *Autographa dudgeoni* (Hampson, 1913)

Lep. Phal. B. M. 13: 544, Plate 238: 29 (*Phytometra*) (Holotype: ♂, Bhutan, coll. BMNH, London)

**Material examined:** Nepal. 1♂, Ganesh Himal, 3 km SE Somdang, 3450 m, 85°13'E, 28°11'N, 25.7.1995, leg Hreblay & Németh (coll. Behounek).

**Distribution.** Bhutan, Nepal.

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